

SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM S-8
REGISTRATION STATEMENT
under
THE SECURITIES ACT OF 1933

TERADYNE, INC.
(Exact name of registrant as specified in its charter)

Massachusetts 04-2272148
(State or other jurisdiction (I.R.S. Employer Identification No.)
of incorporation or organization)

321 Harrison Avenue, Boston, Massachusetts 02118
(Address of Principal Executive Offices) (Zip Code)

TERADYNE, INC.
1979 EMPLOYEE STOCK PURCHASE PLAN
1991 EMPLOYEE STOCK OPTION PLAN
(Full title of the plans)

William B. Asher, Jr., Esq.
TESTA, HURWITZ & THIBEAULT
Exchange Place, 53 State Street
Boston, Massachusetts 02109
(Name and address of agent for service)

(617) 248-7000
(Telephone number, including area code, of agent for service)

Approximate date of commencement of sales pursuant to plan:
From time to time after the Registration Statement has become effective.

Total of sequentially numbered pages: 27
Exhibit index on sequentially numbered page: 6

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CALCULATION OF REGISTRATION FEE

Title of Securities to be registered	Amount to be registered	Proposed maximum offering price per share (1)	Proposed maximum aggregate offering price	Amount of registration fee

1979 Employee Stock Purchase Plan				
Common Stock \$0.125 Par Value	400,000 shares	\$28.75	\$11,500,000	\$ 3,965.55
1991 Employee Stock Option Plan				
Common Stock \$0.125 Par Value	3,000,000 shares	\$28.75	\$86,250,000	\$29,741.59

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(1) The price of \$28.75 per share, which was the average of the high and low prices of the Common Stock on the New York Stock Exchange on August 11, 1994, is set forth solely for purposes of calculating the filing fee.
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This Registration Statement registers additional securities of the same class as other securities for which the Registration Statement No. 33-38251 on Form S-8 was filed with the Securities and Exchange Commission (the "Commission") on December 18, 1990 relating to the 1979 Employee Stock Purchase Plan and the Registration Statement No. 33-42352 on Form S-8 was filed with the Commission on August 23, 1991 relating to the 1979 Employee Stock Purchase Plan and the 1991 Employee Stock Option Plan. Pursuant to General Instruction E, the contents of the above-listed Registration Statements are hereby incorporated by reference.

PART II

INFORMATION REQUIRED IN THE REGISTRATION STATEMENT

Item 8. Exhibits.

Exhibit -----	Description of Exhibit -----
4.1	Teradyne, Inc. 1979 Employee Stock Purchase Plan, as amended.
4.2	Teradyne, Inc. 1991 Employee Stock Option Plan, as amended.
4.3	Restated Articles of Organization of the Registrant, as amended (filed as Exhibit 4.1 to Registration Statement on Form S-3, filed with the Securities and Exchange Commission, effective December 5, 1991 and incorporated herein by reference).
5.1	Opinion of Testa, Hurwitz & Thibeault.
23.1	Consent of Testa, Hurwitz & Thibeault (included in Exhibit 5.1).
23.2	Consent of Independent Auditors.
24.1	Power of Attorney (contained on page 4 of this Registration Statement).

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POWER OF ATTORNEY

Each person whose signature appears below this registration statement hereby constitutes and appoints Alexander V. d'Arbeloff, Owen W. Robbins and Richard J. Testa and each of them, with full power to act without the other, his or her true and lawful attorney-in-fact and agent, with full power of substitution and resubstitution, for him or her and in his or her name, place and stead in any and all capacities (until revoked in writing) to sign all amendments (including post-effective amendments) to this registration statement on Form S-8 of Teradyne, Inc., and to file the same, with all exhibits thereto

and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing requisite and necessary fully to all intents and purposes as he or she might or could do in person thereby ratifying and confirming all that said attorneys-in-fact and agents or any of them, or their or his substitute, may lawfully do or cause to be done by virtue hereof.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-8 and has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Boston, Commonwealth of Massachusetts on this 15th day of August, 1994.

TERADYNE, INC.

By:/s/ Owen W. Robbins

Owen W. Robbins
Executive Vice President
Chief Financial Officer

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Pursuant to the requirements of the Securities Act of 1933, as amended, this registration statement has been signed by the following persons in the capacities and on the date indicated.

Signature -----	Capacity -----	Date ----
\s\ Alexander V. d'Arbeloff ----- Alexander V. d'Arbeloff	President and Chairman of the Board (Principal Executive Officer)	August 15, 1994
\s\ Owen W. Robbins ----- Owen W. Robbins	Executive Vice President and Director (Principal Financial Officer)	August 15, 1994
\s\ Donald J. Hamman ----- Donald J. Hamman	Controller (Principal Accounting Officer)	August 15, 1994
\s\ Edwin L. Artzt ----- Edwin L. Artzt	Director	August 15, 1994
\s\ Albert Carnesale ----- Albert Carnesale	Director	August 15, 1994
\s\ Daniel S. Gregory ----- Daniel S. Gregory	Director	August 15, 1994
\s\ Dwight H. Hibbard ----- Dwight H. Hibbard	Director	August 15, 1994
\s\ Franklin P. Johnson, Jr. ----- Franklin P. Johnson, Jr.	Director	August 15, 1994
-----	Director	

EXHIBIT 4.1

TERADYNE, INC.

1979 EMPLOYEE STOCK PURCHASE PLAN

(Amended as of May 26, 1994)

Article 1 - Purpose

This Employee Stock Purchase Plan (the "Plan") is intended as an incentive and to encourage stock ownership by all eligible employees of Teradyne, Inc. (the "Company"), participating subsidiaries, and acquired businesses so that they may share in the growth of the Company by acquiring or increasing their proprietary interest in the Company. It is intended that options issued pursuant to the Plan shall constitute options issued pursuant to an "employee stock purchase plan" within the meaning of Section 423 of the Internal Revenue Code of 1986 (the "Code"), as amended.

Article 2 - Administration of the Plan

The Plan may be administered by a committee appointed by the Board of Directors of the Company (the "Committee"). The Committee shall consist of not less than two members of the Company's Board of Directors. The Board of Directors may from time to time remove members from, or add members to, the Committee. Vacancies on the Committee, howsoever caused, shall be filled by the Board of Directors. The Committee may select on one of its members as Chairman, and shall hold meetings at such times and places as it may determine. Acts by a majority of the Committee, or acts reduced to or approved in writing by a majority of the members of the Committee, shall be the valid acts of the Committee.

The interpretation and construction by the Committee of any provisions of the Plan or of any option granted under its shall be final unless otherwise determined by the Board of Directors. The Committee may from time to time adopt such rules and regulations for carrying out the Plan as it may deem best, provided that any such rules and regulation shall be applied on a uniform basis to all employees under the Plan. No member of the Board of Directors or the Committee shall be liable for any action or determination made in good faith with respect to the Plan or any option granted under it.

In the event the Board of Directors fails to appoint or refrains from appointing a Committee, the Board of Directors shall have all powers and authority to administer the Plan. In such event, the word "Committee" wherever used herein shall be deemed to mean the Board of Directors.

Article 3 - Eligible Employees

No option may be granted to any person serving as a member of the Committee at the time of grant. Subject to this limitation,

all Eligible Employees (as defined herein) of the Company or any of its participating subsidiaries (as defined in Article 18) who have completed more than 90 days of employment with the Company or any of its subsidiaries on or before the first day of any Payment Period (as defined in Article 5) shall be eligible to receive options under this Plan to purchase the Company's Common

Stock, and all Eligible Employees shall have the same rights and privileges as defined in this Plan. In no event may an employee be granted an option if such employee, immediately after the option is granted, owns stock possessing 5 percent or more of the total combined voting power or value of all classes of stock of the Company or of its parent corporation or subsidiary corporation, as the terms "parent corporation" and "subsidiary corporation" are defined in Section 425 of the Code. For purposes of determining stock ownership under this paragraph, the rules of Section 425(d) of the Code shall apply, and stock which the employee may purchase under outstanding options shall be treated as stock owned by the employee.

For purposes of this Plan the term "Eligible Employee" shall not include an employee whose customary employment is less than 20 hours per week or whose customary employment is for not more than 5 months in any calendar year.

The Board of Directors shall have the authority to permit employees of acquired businesses to participate in the Plan effective within the then current Payment Period without compliance with the eligibility and participation requirements of the Plan, to the extent permitted by the Code.

Article 4 - Stock Subject to the Plan

The stock subject to the options shall be shares of the Company's authorized but unissued shares of Common Stock or shares of Common Stock re-acquired by the Company, including shares purchased in the open market. The aggregate number of shares which may be issued pursuant to the Plan is 4,600,000, subject to adjustment as provided in Article 13. In the event any option granted under the Plan shall expire or terminate for any reason without having been exercised in full or shall cease for any reason to be exercisable in whole or in part, the unpurchased shares subject thereto shall again be available under the Plan.

Article 5 - Payment Period and Stock Options

The twelve-month period commencing annually on the first day of January and ending annually on the last day of December is the Payment Period during which payroll deductions will be accumulated under the Plan. Each Payment Period includes only regular pay days falling within it.

Annually on the first business day of the Payment Period, the Company will grant to each Eligible Employee who has elected to participate in the Plan an option to purchase on the last day of such Payment Period, at the Option Price hereinafter provided for, such number of shares of the Common Stock of the Company reserved for the purpose of the Plan as does not exceed the greater of the number of shares equal to 10% of the employee's regular annual base pay divided by the price determined in accordance with (i) below, or 3,000 shares, on condition that such employee remains eligible to participate in the Plan throughout such Payment Period. The participant shall be entitled to exercise such options so granted only to the extent of his accumulated payroll deductions on the last day of such Payment Period, but in no event to exceed 3,000 shares. The Option Price for each Payment Period shall be the lesser of (i) 85% of the average market price of the Company's Common Stock on the first business day of the Payment Period or (ii) 85% of the average market price of the Company's Common Stock on the last business day of the Payment Period, in either event rounded up to avoid fractions other than 1/4, 1/2 and 3/4. The foregoing limitation on the number of shares which may be granted in any Payment period and the Option Price per share shall be subject to adjustment as provided in Article 13.

For purposes of the Plan the term "average market price" is the average of the high and low prices of the Common Stock of the Company on the principal national securities exchange on which it is so traded or such other national securities exchange as shall be designated by the Committee.

For purposes of this Plan the term "business day" as used herein means a day on which there is trading on the national securities exchange.

No Eligible Employee shall be granted an option which permits his rights to purchase Common Stock under the Plan and any similar plans of the Company or any parent or subsidiary corporations to accrue at a rate which exceeds \$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. The purpose of the limitation in the preceding sentence is to comply with Section 423(b)(8) of the Code.

Article 6 - Exercise of Option
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Each Eligible Employee who continues to be a participant in the Plan on the last business day of a Payment Period shall be deemed to have exercised his option on such date and shall be deemed to have purchased from the Company such number of full shares of Common Stock reserved for the purpose of the Plan as his accumulated payroll deductions on such date will pay for at such Option Price but in no event more than 3,000 shares.

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Subject to Article 15, if a participant is not an employee on the last business day of a Payment Period, he shall not be entitled to exercise his option.

Article 7 - Unused Payroll Deductions
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Only full shares of Common Stock may be purchased under the Plan. Unused payroll deductions remaining in an employee's account at the end of a Payment Period shall be refunded to such participant without interest.

Article 8 - Authorization for Entering Plan
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An Eligible Employee may enter the Plan by filling out, signing and delivering to the Personnel Office an authorization:

- A. Stating the amount to be deducted regularly from his pay;
- B. Authorizing the purchase of stock for him in the Payment Period in accordance with the terms of the Plan; and
- C. Specifying the exact name in which stock purchased for him is to be issued as provided under Article 12 hereof.

Such authorization must be received by the Personnel Office at least 15 days before the beginning date of the next Payment Period.

Unless an employee files a new authorization or withdraws from the Plan, his deductions and purchases under the authorization he has on file under the Plan will continue from one Payment Period to succeeding Payment Periods as long as the Plan remains in effect.

The Company will accumulate and hold for the employee's account the amounts deducted from his pay. No interest will be paid on it.

Article 9 - Minimum and Maximum Amounts of Payroll Deductions

An Eligible Employee may authorize payroll deductions in an amount (in whole percents) not less than 2% but not more than 10% of his regular annual base pay.

Article 10 - No Change in Payroll Deductions

Deductions may not be increased or decreased during any Payment Period, except to reflect changes in base pay during the Payment Period.

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Article 11 - Withdrawal from the Plan

An Eligible Employee may withdraw from the Plan, in whole but not in part, at any time prior to the last business day of each Payment Period by delivering a Withdrawal Notice to the Personnel Office, in which event the Company will refund the entire balance of his deductions as soon as practicable thereafter.

To re-enter the Plan, an Eligible Employee who has previously withdrawn must file a new authorization in accordance with Article 8. His re-entry into the Plan cannot, however, become effective before the beginning of the next Payment Period following his withdrawal.

Article 12 - Issuance of Stock

Certificates for stock issued to participants will be delivered as soon as practicable after each Payment Period.

Stock purchased under the Plan will be issued only in the name of the Eligible Employee, or if his authorization so specifies, in the name of the employee and another person of legal age as joint tenants with rights of survivorship.

Article 13 - Adjustments

Upon the happening of any of the following described events, an optionee's rights under options granted hereunder shall be adjusted as hereinafter provided:

A. In the event shares of Common Stock of the Company shall be subdivided or combined into a greater or smaller number of shares or if, upon a merger, consolidation, reorganization, split-up, liquidation, combination, recapitalization or the like of the Company, the shares of the Company's Common Stock shall be exchanged for other securities of the Company or of another corporation, each optionee shall be entitled, subject to the conditions herein stated, to purchase such number of shares of Common Stock or amount of other securities of the Company or such other corporation as were exchangeable for the number of shares of Common Stock of the Company which such optionee would have been entitled to purchase except for such action, and appropriate adjustments shall be made in the purchase price per share to reflect such subdivision, combination, or exchange; and

B. In the event the Company shall issue any of its shares as a stock dividend upon or with respect to the shares of stock of the class which shall at the time be subject to option hereunder, each optionee upon exercising such an option shall be entitled to receive (for the purchase price paid upon such exercise) the shares as to which he is exercising his option and, in addition thereto (at no additional cost), such number

of shares of the class or classes in which such stock dividend or dividends were declared or paid, and such amount of cash in lieu of fractional shares, as is equal to the number of shares thereof and the amount of cash in lieu of fractional shares, respectively, which he would have received if he had been the holder of the shares as to which he is exercising his option at all times between the date of the granting of such option and the date of its exercise.

Upon the happening of any of the foregoing events, the class and aggregate number of shares set forth in Article 4 hereof which are subject to options which have heretofore been or may hereafter be granted under the Plan shall also be appropriately adjusted to reflect the events specified in paragraphs A and B above. The Committee shall determine the adjustments to be made under this Article 13, and its determination shall be conclusive.

Article 14 - No Transfer or Assignment of Employee's Rights

An employee's rights under the Plan are his alone and may not be transferred or assigned to, or availed of by, any other person. Any option granted to an employee may be exercised only by him.

Article 15 - Termination of Employee's Rights

An employee's rights under the Plan will terminate when he ceases to be an employee because of retirement, resignation, discharge, death, change of status or for any other reason, except that if an employee is laid off on account of an absence of work during the last three months of any Payment Period, he shall nevertheless be deemed to be a participant in the Plan on the last day of the Payment Period. A Withdrawal Notice will be considered as having been received from the employee on the day his employment ceases, and all payroll deductions not used to purchase stock will be refunded.

If an employee's payroll deductions are interrupted by any legal process, a Withdrawal Notice will be considered as having been received from him on the day the interruption occurs.

Article 16 - Termination and Amendments to Plan

The Plan may be terminated at any time by the Company's Board of Directors but such termination shall not affect options then outstanding under the Plan. It will terminate in any case when all or substantially all of the unissued shares of stock reserved for the purposes of the Plan have been purchased. If at any time shares of stock reserved for the purposes of the Plan remain available for purchase but not in sufficient number to satisfy all then unfilled purchase requirements, the available shares shall be apportioned among participants in proportion to their options and the Plan shall terminate. Upon such termination or any other termination of the Plan, all payroll deductions not used to purchase stock will be refunded.

The Board of Directors also reserves the right to amend the Plan from time to time in any respect provided, however, that no amendment shall be effective without prior approval of the stockholders which would (a) except as provided in Article 13, increase the number of shares of Common Stock to be offered under the Plan or (b) change the class of employees eligible to receive options under the Plan.

Article 17 - Limitations on Sale of Stock Purchased Under the Plan

The Plan is intended to provide Common Stock for investment and not for resale. The Company does not, however, intend to restrict or influence any employee in the conduct of his own affairs. An employee may, therefore, sell stock purchased under the Plan at any time he chooses, subject to compliance with any applicable Federal or state securities laws; provided, however, that because of certain Federal tax requirements, each employee will agree by entering the Plan, promptly to give the Company notice of any such stock disposed of within two years after the date of grant of the applicable option showing the number of such share disposed of. THE EMPLOYEE ASSUMES THE RISK OF ANY MARKET FLUCTUATIONS IN THE PRICE OF THE STOCK.

Article 18 - Participating Subsidiaries

The term "participating subsidiaries" shall mean any subsidiary of the Company which is designated by the Committee to participate in the Plan. The Committee shall have the power to make such designation before or after the Plan is approved by the stockholders.

Article 19 - Optionees Not Stockholders

Neither the granting of an option to an employee nor the deductions from his pay shall constitute such employee a stockholder of the shares covered by an option until such shares have been purchased by and issued to him.

Article 20 - Application of Funds

The proceeds received by the Company from the sale of Common Stock pursuant to options granted under the Plan will be used for general corporate purposes.

Article 21 - Governmental Regulation

The Company's obligation to sell and deliver shares of the Company's Common Stock under this Plan is subject to the approval of any governmental authority required in connection with the authorization, issuance or sale of such shares.

Article 22 - Approval of Stockholders

The Plan shall not take effect until approved by the holders of a majority of the outstanding shares of the Common Stock of the Company, which approval must occur within the period ending twelve months after the date the plan was adopted by the Board of Directors. The Plan was adopted by the Board of Directors on December 6, 1978. It was approved by the stockholders of the Company on April 25, 1979. All subsequent amendments to the Plan adopted by the Board of Directors have been approved by the stockholders.

EXHIBIT 4.2

TERADYNE, INC.

1991 EMPLOYEE STOCK OPTION PLAN

(Amended and Restated as of May 27, 1993)

1. Purpose. This 1991 Employee Stock Option Plan (the "Plan") is intended to provide incentives (a) to the employees of Teradyne, Inc. (the "Company"), its parent (if any) and any present or future subsidiaries of the Company (collectively, "Related Corporations") by providing them with opportunities to purchase stock in the Company pursuant to options which qualify as "incentive stock options" under Section 422 of the Internal Revenue Code of 1986, as amended (the "Code"), granted hereunder ("ISO" or "ISOs"); and (b) to directors, employees and consultants of the Company and Related Corporations by providing them with opportunities to purchase stock in the Company pursuant to non-statutory stock options granted hereunder ("NSO" or "NSOs"). Both ISOs and NSOs are referred to hereafter individually as an "Option" and collectively as "Options." As used herein, the terms "parent" and "subsidiary" mean "parent corporation" and "subsidiary corporation" as those terms are defined in Section 425 of the Code.

2. Administration of the Plan.

A. Board or Committee Administration. The Plan shall be administered by the Board of Directors of the Company (the "Board") or by a committee appointed by the Board (the "Committee"); provided, that to the extent required by Rule 16b-3 of the Securities and Exchange Commission ("Rule 16b-3") under the Securities and Exchange Act of 1934, as amended (the "1934 Act"), with respect to specific grants of Options, the Plan shall be administered by a disinterested administrator or administrators within the meaning of Rule 16b-3. Hereinafter all references in this Plan to the "Committee" shall mean the Board if no Committee has been appointed. Subject to ratification of the grant of each Option by the Board (if so required by applicable state law), and subject to the terms of the Plan, the Committee shall have the authority to (i) determine the employees of the Company and Related Corporations (from among the class of employees eligible under paragraph 3 to receive ISOs) to whom ISOs may be granted, and to determine the individuals and entities (from among the class of individuals and entities eligible under paragraph 3 to receive NSOs) to whom NSOs may be granted; (ii) determine the time or times at which Options may be granted; (iii) determine the option price of shares subject to each Option; (iv) determine whether each option granted shall be an ISO or a NSO; (v) determine (subject to paragraph 7) the time or times when each Option shall become exercisable and the duration of the exercise period;

(vi) determine whether restrictions such as repurchase options are to be imposed on shares subject to Options, and the nature of such restrictions if any, and (vii) interpret the Plan and prescribe and rescind rules and regulations relating to it. The interpretation and construction by the Committee of any provisions of the Plan or of any Option granted under it shall be final unless otherwise determined by the Board. The Committee may from time to time adopt such rules and regulations for carrying out the Plan as it may deem best. No member of the Board or the Committee shall be

liable for any action or determination made in good faith with respect to the Plan or any Option granted under it.

3. Eligible Employees and Others. ISOs may be granted to any employee of the Company or any Related Corporation. NSOs may be granted to any employee, consultant or director of the Company or any Related Corporation; provided, that no Option may be granted hereunder to any non-employee director. Granting of any option to any individual or entity shall neither entitle that individual or entity to, nor disqualify him from, participation in any other grant of Options.

4. Stock. The stock subject to Options shall be authorized but unissued shares of Common Stock of the Company, par value \$.125 per share (the "Common Stock"), or shares of Common Stock reacquired by the Company in any manner. The aggregate number of shares which may be issued pursuant to the Plan is 6,000,000, subject to adjustment as provided in paragraph 13. If any Option granted under the Plan shall expire or terminate for any reason without having been exercised in full or shall cease for any reason to be exercisable in whole or in part, the unpurchased shares subject thereto shall again be available for grants of Options under the Plan.

5. Granting of Options. Options may be granted under the Plan at any time after March 13, 1991 and prior to March 13, 2001. The date of grant of an Option under the Plan will be the date specified by the Committee at the time it grants the Option, provided, however, that such date shall not be prior to the date on which the Committee acts to approve the grant. The Committee shall have the right, with the consent of the optionee, to convert an ISO granted under the Plan to a NSO pursuant to paragraph 16.

6. Minimum Option Price; ISO Limitations.

A. Price for NSOs. The price per share specified in the agreement relating to each NSO granted under the Plan shall in no event be less than the minimum legal consideration therefor required under the laws of the Commonwealth of Massachusetts. No more than 200,000 NSOs may be granted under the Plan for less than "fair market value" (as hereinafter defined).

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B. Price for ISOs. The price per share specified in the agreement relating to each ISO granted under the Plan shall not be less than the fair market value per share of Common Stock, on the date of such grant. In the case of an ISO to be granted to an employee owning stock possessing more than ten percent of the total combined voting power of all classes of stock of the Company or any Related Corporation, the price per share specified in the agreement relating to such ISO shall not be less than 110 percent of the fair market value of Common Stock on the date of grant.

C. \$100,000 Annual Limitation on ISOs. Each eligible employee may be granted ISOs only to the extent that, in the aggregate under this Plan and all incentive stock option plans of the Company and any Related Corporation, such ISOs do not become exercisable for the first time by such employee during any calendar year in a manner which would entitle the employee to purchase more than \$100,000 in fair market value (determined at the time the ISOs were granted) of Common Stock in that year. Any options granted to an employee in excess of such amount will be granted as Non-Qualified Options.

D. Determination of Fair Market Value. If, at the time an Option is granted under the Plan, the Company's Common Stock is publicly traded, "fair market value" shall be determined as of the date such Option is granted and shall mean (i) the average (on that date) of the high, low and

closing prices of the Common Stock on the principal national securities exchange on which the Common Stock is traded, if the Common Stock is then traded on a national securities exchange; or (ii) the last reported sale price (on that date) of the Common Stock on the NASDAQ National Market List, if the Common Stock is not then traded on a national securities exchange; or (iii) the closing bid price (or average-of-bid prices) last quoted (on that date) by an established quotation service for over-the-counter securities, if the Common Stock is not reported on the NASDAQ National Market List. However, if the Common Stock is not publicly traded at the time an Option is granted under the Plan, "fair market value" shall be deemed to be the fair value of the Common Stock as determined by the Committee after taking into consideration all factors which it deems appropriate, including, without limitation, recent sale and offer prices of the Common Stock in private transactions negotiated at arm's length.

7. Option Duration. Subject to earlier termination as provided in paragraphs 9 and 10, each Option shall expire on the date specified by the Committee, but not more than (i) ten years and one day from the date of grant in the case of NSOs, (ii) ten years from the date of grant in the case of ISOs generally, and

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(iii) five years from the date of grant in the case of ISOs granted to an employee owning stock possessing more than ten percent &f the total combined voting power of all classes of stock of the Company or any Related Corporation. Subject to earlier termination as provided in paragraphs 9 and 10, the term of each ISO shall be the term set forth in the original instrument granting such ISO, except with respect to any part of such ISO that is converted into a NSO pursuant to paragraph 16.

8. Exercise of Option. Subject to the provisions of paragraphs 9 through 12, each Option granted under the Plan shall be exercisable as follows:

A. Vesting. The Option shall either be fully exercisable on the date of grant or shall become exercisable thereafter in such installments as the Committee may specify.

B. Full Vesting of Installments. Once an installment becomes exercisable it shall remain exercisable until expiration or termination of the Option, unless otherwise specified by the Committee.

C. Partial Exercise. Each Option or installment may be exercised at any time or from time to time, in whole or in part, for up to the total number of shares with respect to which it is then exercisable.

D. Acceleration of Vesting. The Committee shall have the right to accelerate the date of exercise of any installment of any option; provided, that the Committee shall not, without the consent of the optionee, accelerate the exercise date of any installment of any Option granted to any employee as an ISO (and not previously converted into a NSO pursuant to paragraph 16) if such acceleration would violate the annual vesting limitation contained in Section 422 of the Code, as described in paragraph 6(C).

9. Termination of Employment. If an optionee ceases to be employed by the Company and all Related Corporations other than by reason of death or disability as defined in paragraph 10, no further installments of his Options shall become exercisable, and his Options shall terminate after the passage of 90 days from the date of termination of his employment; provided, that the Committee may specify that NSOs may remain exercisable for more than 90 days from the date of termination of employment; provided, further, that in no event shall any Option or part or installment thereof become or remain exercisable after its

specified expiration date. Employment shall be considered as continuing uninterrupted during any bona fide leave of absence (such as those attributable to illness, military obligations or governmental service) provided that the period of such leave does not exceed 90 days or, if longer, any period during which such optionee's, right to reemployment is guaranteed by statute. A

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bona fide leave of absence with the written approval of the Committee shall not be considered an interruption of employment under the Plan, provided that such written approval contractually obligates the Company or any Related Corporation to continue the employment of the optionee after the approved period of absence. Options granted under the Plan shall not be affected by any change of employment within or among the Company and Related Corporations, so long as the optionee continues to be an employee of the Company or any Related Corporation. Nothing in the Plan shall be deemed to give any grantee of any Option the right to be retained in employment or other service by the Company or any Related Corporation for any period of time.

Notwithstanding anything to the contrary contained above, in the case of normal retirement, NSOs granted to an optionee shall remain exercisable until the date which is the earlier of (i) the NSOs, specified expiration date or (ii) 90 days from the date upon which such optionee becomes employed by a competitor of the Company, to the extent of the number of shares which have vested prior to and during such period. The Committee shall have the absolute discretion to determine whether and as of what date any optionee is employed by a competitor of the Company.

10. Death; Disability.

A. Death. If an optionee ceases to be employed by the Company and all Related Corporations by reason of his death, any option of his may be exercised, to the extent of the number of shares with respect to which he has theretofore been granted options (whether or not such options have vested in accordance with their terms) by his estate, personal representative or beneficiary who has acquired the Option by will or by the laws of descent and distribution, (i) in the case of ISOs, at any time prior to the earlier of the ISOs' specified expiration date or 180 days from the date of the optionee's death or (ii) in the case of NSOs, at any time prior to the earlier of the NSOs' specified expiration date or one year from the date of the optionee's death.

B. Disability. If an optionee ceases to be employed by the Company and all Related Corporations by reason of his disability, any Option theretofore granted to such optionee shall remain exercisable until the date which is (i) in the case of ISOs, the earlier of the ISOs' specified expiration date or 180 days from the date of the termination of the optionee's employment or (ii) in the case of NSOs, the earlier of the NSOs' specified expiration date or 33 months from the date of the termination of the optionee's employment, to the extent of the number of shares (a) which, in the case of ISOs, have vested prior to and during the period specified in clause (i) and (b) which, in the case of NSOs, have vested prior to and during the period which is 30 months from the date the optionee ceases to be employed by

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the Company. For the purposes of this Plan, the term "disability" shall mean "permanent and total disability" as defined in Section 22(e)(3) of the Code or any successor statute.

11. Assignability. No Option shall be assignable or transferable by the optionee except by will or by the laws of

descent and distribution, and during the lifetime of the optionee each option shall be exercisable only by him.

12. Terms and Conditions of Options. Options shall be evidenced by instruments (which need not be identical) in such forms as the Committee may from time to time approve. Such instruments shall conform to the terms and conditions set forth in paragraphs 6 through 11 hereof and may contain such other provisions as the Committee deems advisable which are not inconsistent with the Plan, including restrictions applicable to shares of Common Stock issuable upon exercise of options. The Committee may from time to time confer authority and responsibility on one or more of its own members and/or one or more officers of the Company to execute and deliver such instruments. The proper officers of the Company are authorized and directed to take any and all action necessary or advisable from time to time to carry out the terms of such instruments.

13. Adjustments. Upon the occurrence of any of the following events, an optionee's rights with respect to Options granted to him hereunder shall be adjusted as hereinafter provided, unless otherwise specifically provided in the written agreement between the optionee and the Company relating to such Option:

A. Stock Dividends and Stock Splits. If the shares of Common Stock shall be subdivided or combined into a greater or smaller number of shares or if the Company shall issue any shares of Common Stock as a stock dividend on its outstanding Common Stock, the number of shares of Common Stock deliverable upon the exercise of Options shall be appropriately increased or decreased proportionately, and appropriate adjustments shall be made in the purchase price per share to reflect such subdivision, combination or stock dividend.

B. Consolidations or Mergers. If the Company is to be consolidated with or acquired by another entity in a merger, sale of all or substantially all of the Company's assets or otherwise (an "Acquisition"), the Committee or the board of directors of any entity assuming the obligations of the Company hereunder (the "Successor Board"), shall, as to outstanding Options, either (i) make appropriate provision for the continuation of such options by substituting on an equitable basis for the shares then subject to such options the consideration payable with respect to the outstanding

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shares of Common Stock in connection with the Acquisition; or (ii) upon written notice to the optionees, provide that all options must be exercised, to the extent then exercisable, within a specified number of days of the date of such notice, at the end of which period the Options shall terminate; or (iii) terminate all Options in exchange for a cash payment equal to the excess of the fair market value of the shares subject to such Options (to the extent then exercisable) over the exercise price thereof.

C. Recapitalization or Reorganization. In the event of a recapitalization or reorganization of the Company (other than a transaction described in subparagraph B above) pursuant to which securities of the Company or of another corporation are issued with respect to the outstanding shares of Common Stock, an optionee upon exercising an Option shall be entitled to receive for the purchase price paid upon such exercise the securities he would have received if he had exercised his option prior to such recapitalization or reorganization.

D. Modification of ISOs. Notwithstanding the foregoing, any adjustments made pursuant to subparagraphs A, B or C with respect to ISOs shall be made only after the Committee, after consulting with counsel for the Company,

determines whether such adjustments would constitute a "modification" of such ISOs (as that term is defined in Section 425 of the Code) or would cause any adverse tax consequences for the holders of such ISOs. If the Committee determines that such adjustments made with respect to ISOs would constitute a modification of such ISOs, it may refrain from making such adjustments.

E. Dissolution or Liquidation. In the event of the proposed dissolution or liquidation of the Company, each option will terminate immediately prior to the consummation of such proposed action or at such other time and subject to such other conditions as shall be determined by the Committee.

F. Issuances of Securities. Except as expressly provided herein, no issuance 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 subject to Options. No adjustments shall be made for dividends paid in cash or in property other than securities of the Company.

G. Fractional Shares. No fractional shares shall be issued under the Plan and the optionee shall receive from the Company cash in lieu of such fractional shares.

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H. Adjustments. Upon the happening of any of the events described in subparagraphs A, B or C above, the class and aggregate number of shares set forth in paragraph 4 hereof that are subject to Options which previously have been or subsequently may be granted under the Plan shall also be appropriately adjusted to reflect the events described in such subparagraphs. The Committee or the Successor Board shall determine the specific adjustments to be made under this paragraph 13 and, subject to paragraph 2, its determination shall be conclusive.

If any person or entity owning restricted Common Stock obtained by exercise of an Option receives shares or securities or cash in connection with a corporate transaction described in subparagraphs A, B or C above as a result of owning such restricted Common Stock, such shares or securities or cash shall be subject to all of the conditions and restrictions applicable to the restricted Common Stock with respect to which such shares or securities or cash were issued, unless otherwise determined by the Committee or the Successor Board.

14. Means of Exercising Options. An Option (or any part or installment thereof) shall be exercised by giving written notice to the Company at its principal office address. Such notice shall identify the Option being exercised and specify the number of shares as to which such Option is being exercised, accompanied by full payment of the purchase price therefor either (a) in United States dollars in cash or by check, or (b) at the discretion of the Committee, through delivery of shares of Common Stock having fair market value equal as of the date of the exercise to the cash exercise price of the Option, or (c) at the discretion of the Committee in exceptional cases, by delivery of the optionee's personal recourse note bearing interest payable not less than annually at no less than 100% of the lowest applicable Federal rate, as defined in Section 1274(d) of the Code, or (d) at the discretion of the Committee, by any combination of (a), (b) and (c) above. If the Committee exercises its discretion to permit payment of the exercise price of an ISO by means of the methods set forth in clauses (b) or (c) of the preceding sentence, such discretion shall be exercised in writing at the time of the grant of the ISO in question. Alternatively, payment may be made in whole or in part in shares of the Common Stock of the Company already owned by the person or

persons exercising the option or shares subject to the option being exercised (subject to such restrictions and guidelines as the Board may adopt from time to time), or consistent with applicable law, through the delivery of an assignment to the Company of a sufficient amount of the proceeds from the sale of the Common Stock acquired upon exercise of the option and an authorization to the broker or selling agent to pay that amount to the Company, which sale shall be at the participant's direction at the time of exercise. The holder of an Option shall not have the rights of a shareholder with respect to the shares

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covered by his Option until the date of issuance of a stock certificate to him for such shares. Except as expressly provided above in paragraph 13 with respect to changes in capitalization and stock dividends, no adjustment shall be made for dividends or similar rights for which the record date is before the date such stock certificate is issued.

15. Term and Amendment of Plan. This Plan was adopted by the Board on March 13, 1991, and shall expire on the end of the day on March 13, 2001 (except as to Options outstanding on that date). The Board may at any time terminate the Plan or make such modification or amendment thereof as it deems advisable, provided, however, that the Board may not, without approval by the affirmative vote of the holders of a majority of the securities of the Company present, or represented, and entitled' to vote at a meeting duly held in accordance with the applicable laws of the state in which the Company is incorporated, (i) materially increase the benefits accruing to participants under the Plan; (ii) increase the number of shares for which options may be granted under the Plan; or (iii) materially modify the requirements as to eligibility for participation in the Plan. Termination or any modification or amendment of the Plan shall not, without consent of a participant, affect his rights under an option previously granted to him.

16. Conversion of ISOs into NSOs; Termination of ISOs. The Committee, with the written approval of any optionee, may in its discretion take such actions as may be necessary to convert such optionee's ISOs (or any installments of portions of installments thereof) that have not been exercised on the date of conversion into NSOs at any time prior to the expiration of such ISOs, regardless of whether the optionee is an employee of the Company or a Related Corporation at the time of such conversion. Such actions may include, but not be limited to, extending the exercise period or reducing the exercise price of the appropriate installments of such Options. At the time of such conversion, the Committee (with the consent of the optionee) may impose such conditions on the exercise of the resulting NSOs as the Committee in its discretion may determine, provided that such conditions shall not be inconsistent with this Plan. Nothing in the Plan shall be deemed to give any optionee the right to have such optionee's ISOs converted into NSOs, and no such conversion shall occur until and unless the Committee takes appropriate action. The Committee, with the consent of the optionee, may also terminate any portion of any ISO that has not been exercised at the time of such termination.

17. Application of Funds. The proceeds received by the Company from the sale of shares pursuant to Options granted under the Plan shall be used for general corporate purposes.

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18. Governmental Regulation. The Company's obligation to sell and deliver shares of Common Stock under this Plan is subject to the approval of any governmental authority required in connection with the authorization, issuance or sale of such shares.

19. Withholding of Additional Income Taxes. Upon the

exercise of a NSO, the making of a Disqualifying Disposition (as defined in paragraph 20) or the vesting of restricted Common Stock acquired on the exercise of an Option, the Company, in accordance with Section 3402(a) of the Code, may require the optionee to pay additional withholding taxes in respect of the amount that is considered compensation includible in such person's gross income. The Committee in its discretion may condition (i) the exercise of an option or (ii) the vesting of restricted Common Stock acquired by exercising an Option, on the optionee's payment of such additional withholding taxes.

20. Notice to Company of Disqualifying Disposition. Each employee who receives ISOs shall agree to notify the Company in writing immediately after the employee makes a disqualifying disposition of any Common Stock received pursuant to the exercise of an ISO (a "Disqualifying Disposition"). Disqualifying Disposition means any disposition (including any sale) of such stock before the later of (a) two years after the employee was granted the ISO under which he acquired such stock, or (b) one year after the employee acquired such stock by exercising such ISO. If the employee has died before such stock is sold, these holding period requirements do not apply and no Disqualifying Disposition will thereafter occur.

21. Governing Laws; Construction. The validity and construction of the Plan and the instruments evidencing options shall be governed by the laws of the Commonwealth of Massachusetts. In construing this Plan, the singular shall include the plural and the masculine gender shall include the feminine and neuter, unless the context otherwise requires.

EXHIBIT 5.1

TESTA, HURWITZ & THIBEAULT
ATTORNEYS AT LAW

EXCHANGE PLACE, 53 STATE STREET

BOSTON, MASSACHUSETTS 02109-2809

OFFICE (617)248-7000

FAX (617)248-7100

August 15, 1994

Teradyne, Inc.
321 Harrison Avenue
Boston, MA 02118

Re: Registration Statement on Form S-8 Relating
to the 1979 Employee Stock Purchase Plan and
the 1991 Employee Stock Option Plan of
Teradyne, Inc. (the "Company")

Ladies and Gentlemen:

Reference is made to the above-captioned Registration Statement on Form S-8 (the "Registration Statement") filed by the Company with the Securities and Exchange Commission under the Securities Act of 1933, as amended, relating to an aggregate of three million four hundred thousand (3,400,000) shares of Common Stock, \$0.125 par value, of the Company (the "Shares").

We are counsel to the Company and are familiar with the proceedings of its stockholders and Board of Directors. We have examined original or certified copies of the Company's Restated Articles of Organization, as amended, the Company's Amended and Restated By-laws, the corporate records of the Company to the date hereof, and such other certificates, documents, records and materials as we have deemed necessary in connection with this opinion letter.

We are members only of the Bar of the Commonwealth of Massachusetts and are not expert in, and express no opinion regarding, the laws of any jurisdictions other than the Commonwealth of Massachusetts and the United States of America.

Based upon and subject to the foregoing, we are of the opinion that the Shares proposed to be issued by the Company pursuant to the 1979 Employee Stock Purchase Plan and the 1991 Employee Stock Option Plan (the "Plans") will be, upon receipt of the consideration provided for in the Plans, validly issued, fully paid and nonassessable after issuance of such Shares in accordance with the terms of the Plans.

We hereby consent to the filing of this opinion as Exhibit 5.1 to the Registration Statement.

Very truly yours,

TESTA, HURWITZ & THIBEAULT

EXHIBIT 24.2

INDEPENDENT AUDITOR'S CONSENT

We consent to the incorporation by reference in this registration statement on form S-8 of Teradyne, Inc. of our reports dated January 24, 1994 on our audits of the consolidated financial statements and financial statement schedules of Teradyne, Inc. as of December 31, 1993 and 1992, and for the three years in the period ended December 31, 1993, which report is incorporated by reference in the Annual Report on Form 10-K of Teradyne, Inc.

COOPERS & LYBRAND

Boston, Massachusetts
August 11, 1994