

SCHEDULE 14A INFORMATION

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

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Check the appropriate box:

- Preliminary Proxy Statement
- Definitive Proxy Statement
- Definitive Additional Materials
- Soliciting Material Pursuant to sec.240.14a-11(c) or sec.240.14a-12
- Confidential, for Use of the Commission Only (as permitted by Rule 14a-6(e)(2))

MKS Instruments, Inc.  
(Name of Registrant as Specified In Its Charter)

(Name of Person(s) Filing Proxy Statement)

PAYMENT OF FILING FEE (CHECK THE APPROPRIATE BOX):

- No fee required.
- Fee computed on table below per Exchange Act Rules 14a-6(i)(1) 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:

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- 1) Amount Previously Paid:
  - 2) Form, Schedule or Registration Statement No.:
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  - 4) Date Filed:
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(MKS LOGO)

MKS INSTRUMENTS, INC.

SIX SHATTUCK ROAD  
ANDOVER, MASSACHUSETTS 01810  
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April 17, 2002

Dear Stockholder:

You are cordially invited to attend the Annual Meeting of Stockholders of MKS Instruments, Inc. (the "Company") to be held on Thursday, May 16, 2002, at 10:00 a.m. at the Andover Country Club, 60 Canterbury Street, Andover, Massachusetts 01810.

At the Annual Meeting you will be asked to (i) to elect two (2) Class III Directors for a three (3) year term; (ii) to approve an amendment to the Company's Restated Articles of Organization, as amended, increasing the number of authorized shares of Common Stock from 75,000,000 to 200,000,000; (iii) to approve an amendment increasing the number of shares of Common Stock authorized for issuance under MKS' Amended and Restated 1995 Stock Incentive Plan, as amended, from 9,750,000 to 15,000,000; (iv) to approve an amendment increasing the number of shares of Common Stock authorized for issuance under MKS' Amended and Restated 1999 Employee Stock Purchase Plan, as amended, from 450,000 to 700,000; (v) to approve an amendment increasing the number of shares of Common Stock authorized for issuance under MKS' International Employee Stock Purchase Plan, as amended, from 50,000 to 75,000; and (vi) to ratify the selection of PricewaterhouseCoopers LLP as the Company's independent auditors for the fiscal year ending December 31, 2002. Details of the matters to be considered at the Annual Meeting are contained in the Proxy Statement, which we urge you to review carefully.

Whether or not you plan to attend the Annual Meeting, please complete, date, sign and return your Proxy Card promptly in the enclosed envelope, which requires no postage if mailed in the United States. If you attend the Annual Meeting, you may vote in person if you wish, even if you have previously returned your Proxy Card.

On behalf of the Board of Directors, I would like to express our appreciation for your continued interest in the affairs of the Company.

Sincerely,

/s/ John R. Bertucci

JOHN R. BERTUCCI  
Chairman, Chief Executive Officer and  
President

(MKS LOGO)

MKS INSTRUMENTS, INC.  
SIX SHATTUCK ROAD  
ANDOVER, MASSACHUSETTS 01810

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NOTICE OF 2002 ANNUAL MEETING OF STOCKHOLDERS  
TO BE HELD ON MAY 16, 2002  
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To the Stockholders:

NOTICE IS HEREBY GIVEN that the Annual Meeting of Stockholders of MKS INSTRUMENTS, INC. (the "Company"), a Massachusetts corporation, will be held on Thursday, May 16, 2002 at 10:00 a.m. at the Andover Country Club, 60 Canterbury Street, Andover, Massachusetts 01810, for the following purposes:

1. To elect two (2) Class III Directors for a three (3) year term;
2. To approve an amendment to the Company's Restated Articles of Organization, as amended, increasing the number of authorized shares of Common Stock from 75,000,000 to 200,000,000;
3. To approve an amendment increasing the number of shares of Common Stock authorized for issuance under MKS' Amended and Restated 1995 Stock Incentive Plan, as amended, from 9,750,000 to 15,000,000;
4. To approve an amendment increasing the number of shares of Common Stock authorized for issuance under MKS' Amended and Restated 1999 Employee Stock Purchase Plan, as amended, from 450,000 to 700,000;
5. To approve an amendment increasing the number of shares of Common Stock authorized for issuance under MKS' International Employee Stock Purchase Plan, as amended, from 50,000 to 75,000; and
6. To ratify the selection of PricewaterhouseCoopers LLP as the Company's independent auditors for the year ending December 31, 2002.

The Board of Directors has fixed the close of business on April 1, 2002 as the record date for the determination of stockholders entitled to notice of and to vote at the Annual Meeting and any adjournment or adjournments thereof. The stock transfer books of the Company will remain open for the purchase and sale of the Company's Common Stock.

A copy of the Company's Annual Report to Stockholders for the year ended December 31, 2001, which contains consolidated financial statements and other information of interest to stockholders, accompanies this Notice and the enclosed Proxy Statement.

If you would like to attend the Annual Meeting and your shares are held by a broker, bank or other nominee, you must bring to the Annual Meeting a letter from the nominee confirming your beneficial ownership of such shares. You must also bring a form of personal identification. In order to vote your shares at the Annual Meeting, you must obtain from the nominee a proxy issued in your name.

By Order of the Board of Directors

/s/ Richard S. Chute

RICHARD S. CHUTE  
Clerk

Andover, Massachusetts  
April 17, 2002

IMPORTANT

WHETHER OR NOT YOU EXPECT TO ATTEND IN PERSON, PLEASE PROMPTLY SIGN, DATE, AND RETURN THE ENCLOSED PROXY. PROMPTLY SIGNING, DATING, AND RETURNING THE PROXY WILL SAVE THE COMPANY THE EXPENSE AND EXTRA WORK OF ADDITIONAL SOLICITATION. AN ADDRESSED ENVELOPE FOR WHICH NO POSTAGE IS REQUIRED IF MAILED IN THE UNITED STATES IS ENCLOSED FOR THAT PURPOSE. SENDING IN YOUR PROXY WILL NOT PREVENT YOU FROM VOTING YOUR STOCK AT THE ANNUAL MEETING IF YOU DESIRE TO DO SO, AS YOUR PROXY IS REVOCABLE AT YOUR OPTION.

MKS INSTRUMENTS, INC.  
SIX SHATTUCK ROAD  
ANDOVER, MASSACHUSETTS 01810

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PROXY STATEMENT

This Proxy Statement is furnished in connection with the solicitation of proxies by the Board of Directors of MKS Instruments, Inc. (the "Company" or "MKS"), a Massachusetts corporation, for use at the Annual Meeting of Stockholders to be held on May 16, 2002, at 10:00 a.m. at the Andover Country Club, 60 Canterbury Street, Andover, Massachusetts 01810, and at any adjournment or postponement thereof (the "Annual Meeting").

All proxies will be voted in accordance with the stockholders' instructions. If no choice is specified, the shares will be voted in favor of the matters set forth in the accompanying Notice of 2002 Annual Meeting of Stockholders. Any proxy may be revoked by a stockholder at any time before its exercise by delivery of written revocation to the Clerk of the Company. Attendance at the Annual Meeting will not in itself be deemed to revoke a Proxy unless the stockholder gives affirmative notice at the Annual Meeting that the stockholder intends to revoke the proxy and vote in person.

VOTING SECURITIES AND VOTES REQUIRED

At the close of business on April 1, 2002, the record date for the determination of stockholders entitled to notice of and to vote at the Annual Meeting, there were issued and outstanding and entitled to vote 50,975,323 shares of Common Stock, no par value per share, of the Company (the "Common Stock"). Each share entitles the record holder to one vote on each matter.

Under the Company's Amended and Restated By-Laws (the "By-Laws"), the holders of a majority of the shares of Common Stock issued and outstanding and entitled to vote at the Annual Meeting shall constitute a quorum for the transaction of business at the Annual Meeting. Shares of Common Stock present in person or represented by proxy (including shares which abstain or do not vote with respect to one or more of the matters presented for stockholder approval) will be counted for purposes of determining whether a quorum exists at the Annual Meeting.

The affirmative vote of the holders of a plurality of the shares of Common Stock voting on the matter is required for the election of Directors. The affirmative vote of the holders of a majority of the outstanding shares of Common Stock is required to approve the proposed amendment to the Company's Restated Articles of Organization, as amended (the "Restated Articles of Organization"). All other matters require the approval of the holders of a majority of the shares of Common Stock present at the Annual Meeting or represented by proxy.

Shares held by stockholders who abstain from voting as to a particular matter, and shares held in "street name" by brokers or nominees, who indicate on their proxies that they do not have discretionary authority to vote such shares as to a particular matter, will not be counted as votes in favor of such matter, and also will not be counted as shares voting on such matter. Accordingly, abstentions and "broker non-votes" will have no effect on the voting on a matter that requires the affirmative vote of a certain percentage of the shares voting on the matter. However, because shares which abstain and shares represented by broker non-votes are nonetheless considered outstanding shares, abstentions and broker non-votes with respect to the proposed

amendment to the Company's Restated Articles of Organization will have the same effect as a vote against such proposed amendment.

THE NOTICE OF ANNUAL MEETING, THIS PROXY STATEMENT AND THE COMPANY'S ANNUAL REPORT TO STOCKHOLDERS FOR THE YEAR ENDED DECEMBER 31, 2001, ARE BEING MAILED TO STOCKHOLDERS ON OR ABOUT APRIL 17, 2002. A COPY OF THE COMPANY'S ANNUAL REPORT ON FORM 10-K FOR THE YEAR ENDED DECEMBER 31, 2001, AS FILED WITH THE SECURITIES AND EXCHANGE COMMISSION (THE "COMMISSION"), EXCLUDING EXHIBITS, WILL BE FURNISHED WITHOUT CHARGE TO ANY STOCKHOLDER UPON WRITTEN REQUEST TO GLOBALWARE SOLUTIONS, C/O CCBN.COM INVESTOR CONNECT, 148 WARD HILL, HAVERHILL, MA 01835. EXHIBITS WILL BE PROVIDED UPON WRITTEN REQUEST AND PAYMENT OF AN APPROPRIATE PROCESSING FEE.

SECURITY OWNERSHIP OF CERTAIN BENEFICIAL  
OWNERS AND MANAGEMENT

The following table sets forth certain information with respect to the beneficial ownership of Common Stock by (i) each stockholder known to the Company to be the beneficial owner of more than 5% of the outstanding shares of Common Stock; (ii) each current director of the Company; (iii) the executive officers named in the Summary Compensation Table below; and (iv) all directors and executive officers of the Company as a group. Unless otherwise indicated in the footnotes to the table, (i) all information set forth in the table is as of January 31, 2002; and (ii) the address for each director and executive officer of the Company is: c/o MKS Instruments, Inc., Six Shattuck Road, Andover, Massachusetts 01810.

NUMBER OF SHARES BENEFICIALLY OWNED(1)	PERCENTAGE OF CLASS OUTSTANDING -	NAME OF BENEFICIAL OWNERS
----- John		
R. Bertucci.....	14,921,284(2) 29.8%	Ronald C.
Weigner.....	310,001(3) *	Leo
Berlinghieri.....	270,000(4) *	William D.
Stewart.....	284,247(5) *	Peter R.
Younger.....	113,973(6) *	Robert L.
Klimm.....	42,739(7) *	Richard S.
Chute.....	1,509,148(8) 3.0%	Robert R.
Anderson.....	77,265(9) *	Hans-Jochen
Kahl.....	50,663(10) *	Owen W.
Robbins.....	31,092(4) *	Louis P.
Valente.....	31,092(4) *	James G.
Berges.....	12,000,000(11) 24.0%	All directors and executive officers as a group (12 persons)
Electric Co.....	28,163,448(12) 55.0%	Other 5% shareholder Emerson Electric Co. 12,000,000 24.0% 800 West Florissant Avenue St. Louis, MO 63136

\* Represents less than 1% of the outstanding Common Stock.

(1) The Company believes that each stockholder has sole voting and investment power with respect to the shares listed, except as otherwise noted. The number of shares beneficially owned by each stockholder is determined under rules of the Commission, and the information is not necessarily indicative of ownership for any other purpose. Under such rules, beneficial ownership includes any shares as to which the person has sole or shared voting power or investment power and also any shares which the individual has the right to acquire within 60 days after January 31, 2002 through the exercise of any stock option or other right. The inclusion herein of any shares of Common Stock deemed beneficially owned does not constitute an admission by such stockholder of beneficial ownership of those shares of Common Stock. Shares of Common Stock which an individual or entity has a right to acquire within the 60-day period following January 31, 2002 pursuant to the exercise of options or warrants are deemed to be outstanding for the purpose of computing the percentage ownership of such individual or entity, but are not deemed to be outstanding for the purpose of computing the percentage ownership of any other person or entity shown in the table.

(2) Includes 5,878,484 shares held directly by Mr. Bertucci, 5,552,946 shares held directly by Mr. Bertucci's family members, and 3,456,112 shares held by Bertucci family trusts for which either Mr. Bertucci or his wife serves as a co-trustee. In addition, includes 33,742 shares subject to options exercisable within 60 days of January 31, 2002.

- (3) Consists of 2,901 shares held directly by Mr. Weigner and 307,100 shares subject to options exercisable within 60 days of January 31, 2002.
- (4) Consists solely of options exercisable within 60 days of January 31, 2002.
- (5) Consists of 2,647 shares held directly by Mr. Stewart and 281,600 shares subject to options exercisable within 60 days of January 31, 2002.
- (6) Consists of 656 shares held directly by Mr. Younger, 2,484 shares held directly by Mr. Younger and his family members, 833 shares held by certain members of the Younger family trusts for which Mr. Younger serves as trustee, and 110,000 shares subject to options exercisable within 60 days of January 31, 2002.
- (7) Consists of 1,489 shares held directly by Mr. Klimm and 41,250 shares subject to options exercisable within 60 days of January 31, 2002.
- (8) Consists of 1,478,056 shares held by certain of the Bertucci family trusts for which Mr. Chute serves as a co-trustee and 31,092 shares subject to options held by Mr. Chute exercisable within 60 days of January 31, 2002.
- (9) Consists of 53,193 shares held directly by Mr. Anderson, 11,503 shares held in trust for the benefit of a child of Mr. Anderson, of which Mr. Anderson is the trustee, and 12,569 shares subject to options exercisable within 60 days of January 31, 2002.
- (10) Consists of 20,209 shares held directly by Mr. Kahl, 4,081 shares held by Mr. Kahl's wife, and 26,373 shares subject to options exercisable within 60 days of January 31, 2002.
- (11) Includes 12,000,000 shares held by Emerson Electric Co. of which Mr. Berges serves as President and Director.
- (12) Includes 1,175,910 shares subject to options exercisable within 60 days of January 31, 2002.

To the knowledge of the Company, there are no agreements among any of the foregoing persons or entities with respect to the voting of shares of Common Stock of the Company.

#### PROPOSAL ONE ELECTION OF DIRECTORS

The By-Laws of the Company provide for a Board of Directors which is divided into three classes. The term of the Class I Directors expires at the 2003 Annual Meeting. The term of the Class II Directors expires at the 2004 Annual Meeting, and the term of the Class III Directors expires at the 2002 Annual Meeting. Mr. John R. Bertucci and Mr. Robert R. Anderson are currently proposed for election to serve as Class III Directors.

Shares represented by all proxies received by the Board of Directors and not so marked as to withhold authority to vote for an individual director will be voted (unless one or both nominees are unable or unwilling to serve) for the election of the nominees named below. The Board of Directors expects that each of the nominees named below will be available for election, but if either of them is not a candidate at the time the election occurs, it is intended that such proxies will be voted for the election of a substitute nominee to be designated by the Board of Directors.

#### BOARD RECOMMENDATION

THE BOARD OF DIRECTORS BELIEVES THAT APPROVAL OF THE ELECTION OF MR. JOHN R. BERTUCCI AND MR. ROBERT R. ANDERSON TO SERVE AS CLASS III DIRECTORS IS IN THE BEST INTERESTS OF MKS AND ITS STOCKHOLDERS AND THEREFORE RECOMMENDS A VOTE "FOR" THIS PROPOSAL.

DIRECTORS

Set forth below are the names and ages of each member of the Board of Directors (including those who are nominees for election as Class III Directors) and the positions and offices held by him, his principal occupation and business experience during the past five years, the names of other publicly held companies of which he serves as a director and the year of the commencement of his term as director of MKS. Information with respect to the number of shares of Common Stock beneficially owned by each director, directly or indirectly, as of January 31, 2002, appears under the heading "Security Ownership of Certain Beneficial Owners and Management."

CLASS TO WHICH POSITION BELONGS	NAME	AGE
	*John R. Bertucci	61
	Richard S. Chute	63
	Louis P. Robbins(2)	72
	*Robert R. Valente(1)(2)	71
	Hans-Jochen Anderson(2)	64
	James G. Kahl(1)	62
	Berges(3)	54

- (1) Member of Compensation Committee.
- (2) Member of Audit Committee.
- (3) Joined the Board effective February 1, 2002
- \* Nominee for election at this meeting.

Mr. Bertucci has served as a director of MKS since 1974 and has been Chairman of the Board of Directors and Chief Executive Officer since November 1995. Mr. Bertucci served as President of MKS from 1974 to May 1999 and again from November 2001 to the present. From 1970 to 1974, he was Vice President and General Manager. Mr. Bertucci has an M.S. in Industrial Administration and a B.A. in Metallurgical Engineering from Carnegie-Mellon University. Mr. Bertucci is also a director of Intellisense Corporation.

Mr. Chute has served as a director of MKS since 1974. Mr. Chute has been a member of the law firm of Hill & Barlow, a Professional Corporation, since 1971.

Mr. Robbins has served as a director of MKS since February 1996. Mr. Robbins was Executive Vice President of Teradyne, Inc., a manufacturer of electronic test systems and backplane connection systems used in the electronics and telecommunications industries, from March 1992 to May 1997, and its Chief Financial Officer from February 1980 to May 1997.

Mr. Valente has served as a director of MKS since February 1996. Mr. Valente has been Chairman and Chief Executive Officer of Palomar Medical Technologies, Inc., a company which designs, manufactures and markets cosmetic lasers, since September 1997. He has been a director of Palomar Medical Technologies, Inc. Mr. Valente was also served as director of SurgiLight, Inc. since July, 2001. since February 1997 and was its President and Chief Executive Officer from May 1997 to September 1997. Mr. Valente is a director of two privately held medical software companies. Mr. Valente also serves as director of SurgiLight, Inc. since July, 2001.

Mr. Anderson has served as a director of MKS since January 2001. Mr. Anderson is a private investor. From October 1998 to October 2000, Mr. Anderson served as Chief Executive Officer of Yield Dynamics, Inc., a private semiconductor control software company and presently serves as a director. He also served as



CEO of Silicon Valley Research, Inc., a semiconductor design automation software company from December 1996 to August 1998. Mr. Anderson currently serves as a director of Metron Technology N.V., a distributor of parts and equipment for the semiconductor industry, Trikon Technologies, Inc., a manufacturer of semiconductor process equipment, and Aehr Test Systems, Inc., a manufacturer of semiconductor test and burn in equipment. He also serves as a director of three other private development stage companies, and as a trustee of Bentley College.

Mr. Kahl has served as a director of MKS since January 2001. From June 1994 through September 1996, Mr. Kahl served as a consultant to Ebara, a Japanese manufacturer of industrial water pumps and vacuum process equipment for the semiconductor industry. Mr. Kahl was employed by Leybold AG, formerly Leybold-Heraeus GmbH, a leading international manufacturer of vacuum pumps and other vacuum process equipment for the semiconductor industry, from July 1983 to March 1992, where he served as a managing director and was primarily responsible for sales, marketing and strategic planning. Since November 1996, he has served as a director of Solid State Management, a privately held manufacturer of high precision measurement tools.

Mr. Berges joined Emerson Electric Co. in 1976 as director of manufacturing planning, and has held successively more responsible positions at the company since then. He is currently President and Director of Emerson, and is also a Director of PPG Industries, Inc.

#### DIRECTOR COMPENSATION

Directors of MKS are reimbursed for expenses incurred in connection with their attendance at Board of Directors and committee meetings. Directors who are not employees of MKS are paid an annual fee of \$10,000 and \$1,000 for each Board of Directors meeting they attend and \$500 for each committee meeting they attend which is not held on the same day as a Board of Directors meeting. Messrs. Chute, Robbins and Valente and Robert J. Therrien, a former non-employee director of the Company, have each been granted options, under MKS' 1996 Director Stock Option Plan (under which no further grants will be made), to purchase 8,592 shares of Common Stock at a weighted average exercise price of \$4.81 per share. Each has also been granted options to purchase 28,500 shares of Common Stock at a weighted average exercise price of \$23.74 per share under the 1997 Director Stock Option Plan (the "1997 Director Plan"). Mr. Anderson and Mr. Kahl have each been granted options to purchase 11,250 shares of Common Stock at an exercise price of \$20.125 per share under the 1997 Director Plan.

#### 1997 DIRECTOR STOCK OPTION PLAN

MKS' 1997 Director Plan authorizes the issuance of up to an aggregate of 300,000 shares of Common Stock. The 1997 Director Plan is administered by MKS' Board of Directors. Options are granted under the 1997 Director Plan only to directors of MKS who are not employees of MKS. Under the 1997 Director Plan, non-employee directors receive an option to purchase 11,250 shares of Common Stock upon their initial election to the Board of Directors. Each initial option vests over a three-year period in twelve (12) equal quarterly installments following the date of grant. On the date of each annual meeting of the stockholders, options are automatically granted to each eligible director who has been in office for at least six (6) months prior to the date of the annual meeting of the stockholders. Each annual option entitles the holder to purchase 6,000 shares of Common Stock. Each annual option will generally become exercisable on the day prior to the first annual meeting of stockholders following the date of grant, or if no such meeting is held within thirteen (13) months after the date of grant, on the thirteen (13) month anniversary of the date of grant. The exercise price of all options granted under the 1997 Director Plan is equal to the fair market value of the Common Stock on the date of grant. Options granted under the 1997 Director Plan terminate upon the earlier of three (3) months after the optionee ceases to be a director of MKS or ten (10) years after the grant date. In the

event of a change in control of MKS, the vesting of all options then outstanding would be accelerated in full and any restrictions on exercising outstanding options would terminate.

The Company's 1996 Director Stock Option Plan, under which options have been granted to, and may still be exercised by, four non-employee directors of MKS, has been terminated. See "Director Compensation."

#### COMMITTEES OF THE BOARD OF DIRECTORS

The Compensation Committee for the year 2001 consisted of Messrs. Valente and Kahl and Mr. Therrien, who resigned as a director and from the Compensation Committee in February 2002. The Compensation Committee reviews and evaluates the salaries, supplemental compensation and benefits of all officers of MKS, reviews general policy matters relating to compensation and benefits of employees of MKS and makes recommendations concerning these matters to the Board of Directors. The Compensation Committee also administers MKS' stock option and stock purchase plans, and sets grants to executive officers, under the Company's Stock Plans. The Compensation Committee held two (2) meetings in 2001.

The Audit Committee beginning in year 2001 initially consisted of Messrs. Robbins, Therrien and Valente. Mr. Therrien resigned from the Audit Committee in February 2001 and Mr. Anderson joined the Audit Committee in February 2001. The Audit Committee reviews with MKS' independent auditor the scope and timing of its audit services, the auditor's report on MKS' financial statements following completion of its audit and MKS' policies and procedures with respect to internal accounting and financial controls. In addition, the Audit Committee will make annual recommendations to the Board of Directors for the appointment of independent auditors for the ensuing year.

The Board of Directors held ten (10) meetings during 2001. Each director attended at least 80% of the total number of meetings of the Board of Directors and all committees of the Board on which he served.

#### COMPENSATION COMMITTEE REPORT ON EXECUTIVE COMPENSATION

The Company's executive compensation program is administered by the Compensation Committee of the Board of Directors. In 2001, the Compensation Committee (the "Committee") was initially comprised of two non-employee directors, Messrs. Therrien and Valente. Mr. Kahl joined the Committee in February 2001. Mr. Therrien resigned as a director and from the Committee in February 2002. The Committee is responsible for determining the salaries of, establishing bonus programs for, and granting stock options to, the Company's executive officers.

The Committee believes that the primary objectives of the Company's compensation policies are to attract, retain, motivate, and reward a management team that can effectively implement and execute the Company's strategic business plan and lead the Company in achieving its long-term growth and earnings goals. These compensation policies include an overall management compensation program that: (i) is competitive with management compensation programs at companies of similar size; (ii) recognizes individual initiative, leadership and achievement; (iii) provides short-term bonus incentives for management to meet the Company's net income performance goals; and (iv) provides long-term incentive compensation in the form of stock options to encourage management to continue to focus on shareholder return.

The Committee's goal is to use compensation policies to closely align the interests of the Company's management with the interests of shareholders so that the Company's management have incentives to achieve short-term performance goals while building long-term value for the Company's shareholders. In establishing base salaries for executive officers, the Committee considers numerous factors such as the executive's responsibilities, the executive's importance to the Company, the executive's performance, historical salary

levels of the executive, and the salaries of executives at certain other companies whose business is similar to that of the Company. The Committee will review its compensation policies from time to time in order to determine the reasonableness of the Company's compensation programs and to take into account factors which are unique to the Company.

The Company has entered into employment agreements with certain senior officers of the Company. The Committee believes that the salaries and benefits provided to these senior officers reflect appropriate base salaries and benefits as compared to senior officers of other companies of similar size. These agreements provide for termination for cause as well as termination without cause and for certain severance benefits and restrict the officers' ability to compete with the Company.

#### BONUS PLAN

To further provide incentives for management to continue to improve operating results, the Board of Directors implemented the Management Incentive Plan ("Bonus Plan"). The amounts to be distributed pursuant to the Bonus Plan are determined by the financial results of the Company. The Committee believes that the Bonus Plan provides significant incentive to the executive officers of the Company to exceed the Company's financial goals.

#### LONG-TERM INCENTIVE COMPENSATION

Long-term incentive compensation, in the form of stock options, allows the executive officers to share in any appreciation in the value of the Company's Common Stock. The Committee believes that stock option participation aligns executive officers' interests with those of the stockholders. In addition, the Committee believes that awarding options to executive officers helps to balance the short-term focus of annual incentive compensation with a longer term view and may help to retain key executive officers. Moreover, because options granted to executive officers generally become exercisable over a four or five year period and terminate upon or shortly after the termination of the executive's employment with the Company, stock options serve as a means of retaining these executives.

When establishing stock option grant levels, the Committee considers general corporate performance, the Chief Executive Officer's recommendations, level of seniority and experience, the dilutive impact of the options, previous grants of stock options, vesting schedules of outstanding options and the current stock price.

It is the policy of the Company to make an initial stock option grant to all executive officers at the time they commence employment consistent with the number of options granted to executive officers in the industry at similar levels of seniority. In addition, the Committee may also make grants throughout the year. In making such grants, the Committee considers individual contributions to the Company's financial, operational and strategic objectives.

Senior management also participates in Company-wide employee benefit plans, including the Company's 401(k) Plan. Benefits under these plans are not dependent upon individual performance.

#### COMPENSATION OF CHIEF EXECUTIVE OFFICER

Mr. Bertucci's compensation was based upon a careful analysis of other comparable companies' Chief Executive Officers' compensation and Mr. Bertucci's efforts and success in improving the Company's operating results, establishing strategic goals and objectives for long-term growth of the Company, and advancing the Company in obtaining its strategic goals.

## SECTION 162(M)

Section 162(m) of the Internal Revenue Code generally disallows a tax deduction to public companies for certain compensation in excess of \$1.0 million paid to the company's chief executive officer and the four other most highly compensated executive officers. Certain compensation, including qualified performance-based compensation, will not be subject to the deduction limit if certain requirements are met.

The Committee reviews the potential effect of Section 162(m) periodically and generally seeks to structure the long-term incentive compensation granted to its executive officers through option issuances under the Amended and Restated 1995 Stock Incentive Plan, as amended, in a manner that is intended to avoid disallowance of deductions under Section 162(m). However, because the Company's Bonus Plan is not operated in a manner designed to qualify as performance-based compensation under Section 162(m), it is possible that a portion of any bonus payable to Mr. Bertucci and certain other executives under the Bonus Plan will not be deductible for federal income tax purposes. Nevertheless, there can be no assurances that compensation attributable to awards granted under the Amended and Restated 1995 Stock Incentive Plan, as amended, will be treated as qualified performance-based compensation under Section 162(m). The Committee reserves the right to use its judgment to authorize compensation payments which may be in excess of the Section 162(m) limit when the Committee believes such payments are appropriate, after taking into consideration changing business conditions or the officer's performance, and are in the best interests of the stockholders.

Louis P. Valente, Chairman  
Robert J. Therrien  
Hans-Jochen Kahl

## COMPENSATION COMMITTEE INTERLOCKS AND INSIDER PARTICIPATION

In 2001, the Compensation Committee comprised Messrs. Therrien, Valente and Kahl. Messrs. Therrien, Valente and Kahl were not, at any time, officers or employees of MKS or any subsidiary of MKS, and none of them had any relationship with MKS requiring disclosure under Item 404 of Regulation S-K under the Securities Exchange Act of 1934, as amended (the "Exchange Act"). No executive officer of MKS serves or has served as a member of the Board of Directors or Compensation Committee (or other committee serving an equivalent function) of any other entity which has one or more executive officers serving as a member of MKS' Board of Directors or Compensation Committee.

## REPORT OF THE AUDIT COMMITTEE OF THE BOARD OF DIRECTORS

The Audit Committee of the Company's Board of Directors is currently composed of three members and acts under a written charter first adopted and approved in 2000. A copy of this charter is attached to this proxy statement as Appendix A. The members of the Audit Committee are independent directors, as defined by its charter and the rules of the Nasdaq National Market, and possess the financial sophistication required by such charter and rules. The Audit Committee held six meetings during the fiscal year ended December 31, 2001.

Management is responsible for the Company's internal controls and the financial reporting process. The Company's independent accountants, PricewaterhouseCoopers LLP ("PwC"), are responsible for performing an independent audit of the Company's financial statements in accordance with generally accepted accounting principles and issue a report on those financial statements. The Audit Committee is responsible for monitoring and overseeing these processes. As appropriate, the Audit Committee reviews and evaluates, and discusses with the Company's management, internal accounting, financial and auditing personnel and the independent auditors, the following:

- the plan for, and the independent auditors' report on, each audit of the Company's financial statements;
- the Company's financial disclosure documents, including all financial statements and reports filed with the Commission or sent to shareholders;
- management's selection, application and disclosure of critical accounting policies;
- major changes in the Company's significant: accounting practices, principles, controls or methodologies;
- significant developments or changes in accounting rules applicable to the Company; and
- the adequacy of the Company's internal controls and accounting, financial and auditing personnel.

The Audit Committee reviewed the Company's audited financial statements for the fiscal year ended December 31, 2001, and discussed these financial statements with the Company's management. Management represented to the Audit Committee that the Company's financial statements had been prepared in accordance with generally accepted accounting principles. The Audit Committee also reviewed and discussed the audited financial statements and the matters required by Statement on Auditing Standards 61 Communication with Audit Committees with PwC, the Company's independent auditors. SAS 61 requires the Company's independent auditors to discuss with the Company's Audit Committee, among other things, the following:

- methods to account for significant unusual transactions;
- the effect of significant accounting policies in controversial or emerging areas for which there is a lack of authoritative guidance or consensus;
- the process used by management in formulating particularly sensitive accounting estimates and the basis for the auditors' conclusions regarding the reasonableness of those estimates; and

- disagreements with management over the application of accounting principles, the basis for management's accounting estimates and the disclosures in the financial statements.

The Company's independent auditors also provided the Audit Committee with the written disclosures and the letter required by Independence Standards Board Standard No. 1 (Independence Discussions with Audit Committees). Independence Standards Board Standard No. 1 requires auditors annually to disclose in writing all relationships that in the auditor's professional opinion may reasonably be thought to bear on independence, confirm their perceived independence and engage in a discussion of independence. In addition, the Audit Committee discussed with the independent auditors their independence from the Company. The Audit Committee also considered whether the independent auditors' provision of the other, non-audit related services to the Company which are referred to below is compatible with maintaining such auditors' independence.

Based on its discussions with management and the independent auditors, and its review of the representations and information provided by management and the independent auditors, the Audit Committee recommended to the Company's Board of Directors that the audited financial statements be included in the Company's Annual Report on Form 10-K for the year ended December 31, 2001.

Management has advised us that for the year ended December 31, 2001, the Company was billed by its independent auditors, PwC, for services in the following categories:

Audit Fees:

PwC billed the Company an aggregate of \$339,000 in fees for professional services rendered in connection with the audit of the Company's financial statements for the most recent fiscal year and the reviews of the financial statements included in each of the Company's Quarterly Reports on Form 10-Q during the last fiscal year ended December 31, 2001.

Financial Information Systems Design and Implementation Fees:

PwC did not bill the Company for any professional services rendered for the most recent fiscal year in connection with financial information systems design or implementation, the operation of the Company's information system or the management of its local area network.

All Other Fees(1):

PwC billed the Company an aggregate of \$1,238,000 for all other services rendered for the most recent fiscal year.

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(1) All Other Fees includes fees for the following routine audit and tax services:

Tax accounting and compliance services.....	\$655,000
Due diligence, accounting and tax advice in support of acquisitions and dispositions.....	\$583,000

We have considered and determined that the provision of the non-audit services noted in the foregoing table is compatible with maintaining PwC's independence.

By the Audit Committee of the Board of Directors of MKS Instruments, Inc.

Robert R. Anderson, Chairman  
 Owen W. Robbins  
 Louis P. Valente

## EXECUTIVE OFFICERS

The following is a brief summary of the background of each executive officer of MKS, other than Mr. Bertucci, MKS' Chairman, Chief Executive Officer and President, whose background is described above:

Ronald C. Weigner, Vice President and Chief Financial Officer, Age 56.

Mr. Weigner has served as Vice President and Chief Financial Officer of MKS since November 1995. From September 1993 until November 1995, he was Vice President and Corporate Controller and from 1980 to 1993 he was Corporate Controller. Mr. Weigner is a certified public accountant and has a B.S. in Business Administration from Boston University.

Leo Berlinghieri, Vice President, Global Sales and Service, Age 48.

Mr. Berlinghieri has served as Vice President, Global Sales and Service of MKS since November 1995. From 1980 to November 1995, he served in various management positions of MKS, including Manufacturing Manager, Production and Inventory Control Manager, and Director of Customer Support Operations. Mr. Berlinghieri is also Treasurer of the TQM-BASE Council, Inc., a non-profit quality management consortium comprised of Boston area semiconductor capital equipment manufacturers.

William D. Stewart, Vice President and General Manager, HPS Products, Age 57.

Mr. Stewart has served as Vice President and General Manager, HPS Products group since November 1997. From October 1986 to November 1997, he was President of HPS Products group, which MKS acquired in 1986. Mr. Stewart co-founded HPS in 1976. Mr Stewart has an M.B.A. from Northwestern University and a B.S. in Business Administration from the University of Colorado. Mr. Stewart also serves on the Board of Directors of the Janus Fund.

Robert L. Klimm, Vice President and General Manager, ASTeX Products, Age 51.

Mr. Klimm has served as Vice President and General Manager of MKS since December 1999. Mr. Klimm was Vice President and General Manager of the Factory Automation Division of PRI Automation from 1997 to 1999. From 1990 to 1997 he held various positions at Eaton's Semiconductor Equipment Operations, culminating as General Manager of the Implant Systems Division. Mr. Klimm has an M.B.A. from the Sloan School at MIT, an M.A. in Electrical Engineering from Northeastern University and a B.S. in Electrical Engineering from Lehigh University.

Executive officers of MKS are elected by the Board of Directors on an annual basis and serve until their successors are duly elected and qualified. There are no family relationships among any of the executive officers or directors of MKS.



of perquisites and other personal benefits has been omitted in those instances where such perquisites and other personal benefits constituted less than the lesser of \$50,000 or 10 percent of the total salary and bonus for each Named Executive Officer for such year.

- (2) Effective November, 2001, Mr. Younger resigned as the Company's President and Chief Operating Officer.

STOCK OPTION GRANTS

OPTION GRANTS IN FISCAL YEAR 2001

INDIVIDUAL  
GRANTS STOCK ---  
-----

-----  
POTENTIAL  
REALIZABLE VALUE  
AT NUMBER OF %  
OF TOTAL ASSUMED  
ANNUAL RATES OF  
SECURITIES  
OPTIONS PRICE  
APPRECIATION FOR  
OPTION  
UNDERLYING  
GRANTED TO  
EXERCISE OF  
TERM(6) OPTIONS  
EMPLOYEES IN  
BASE PRICE  
EXPIRATION -----

----- NAME  
GRANTED(1)  
FISCAL YEAR(4)  
(\$/SH) DATE(5)  
5% 10% - ---- -  
-----  
-----  
-----

----- John  
R. Bertucci.....  
-----

- Ronald C.  
Weigner....  
30,000(1) \$17.25  
3/20/2011 \$  
325,453 \$  
824,761 950(2)  
20.02 10/14/2011  
11,961 30,311  
125,000(3) 5.8%  
24.50 11/13/2011  
1,925,991

4,880,835 Leo  
Berlinghieri.....  
30,000(1) 17.25  
3/20/2011  
325,453 824,761  
880(2) 20.02  
10/14/2011  
11,080 28,078  
125,000(3) 5.8%  
24.50 11/13/2011  
1,925,991  
4,880,835

William D.  
Stewart...  
30,000(1) 17.25  
3/20/2011  
325,453 824,761  
926(2) 20.02  
10/14/2011  
11,659 29,546  
125,000(3) 5.8%  
24.50 11/13/2011  
1,925,991

4,880,835 Robert  
L. Klimm.....  
30,000(1) 17.25  
3/20/2011  
325,453 824,761  
863(2) 1.1%  
20.02 10/14/2011

10,866 27,535  
Peter R.  
Younger.....  
50,000(3) 24.50  
11/13/2011  
770,396  
1,952,334  
10,000(3) 2.2%  
24.80 11/15/2011  
155,966 395,248

- - - - -

- (1) The Options granted in the fiscal year ended December 31, 2001 are exercisable as follows: 25% of the shares become exercisable on the first anniversary of the date of issue. An additional 6.25% of the initial grant of options vests on each successive quarter.
- (2) This option will become exercisable as follows: 33 1/3% after the first year and each successive 12 month period thereafter.
- (3) This option is exercisable on the grant date.
- (4) In the fiscal year ended December 31, 2001, options to purchase a total of 2,701,952 shares of Common Stock were granted to employees of MKS, including officers.
- (5) The options are subject to earlier termination upon certain events related to termination of employment.
- (6) The dollar gains under these columns result from calculations discussing hypothetical growth rates as set by the Commission and are not intended to forecast future price appreciation of the Common Stock.



the business of Emerson and its subsidiaries operating as the "ENI Division" pursuant to an Agreement and Plan of Merger with respect to the Acquisition of the ENI Business dated October 30, 2001 between MKS and Emerson. At the effective time of the acquisition, MKS issued an aggregate of 12 million shares of its Common Stock to Emerson, in exchange for the businesses and assets of ENI. The purchase price was approximately \$265,000,000.

#### EMPLOYMENT AGREEMENTS

MKS entered into employment agreements with each of Messrs. Weigner, Berlinghieri, Stewart, Klimm and Younger. The terms of such employment agreement are included in the summary below.

Each agreement sets the base salary for each employee which is reviewed annually. In addition to a base salary, each employee is entitled, under MKS' Management Incentive Program, to a bonus equal to a percentage of his base salary if MKS attains specified financial goals during the year. Each employee is also entitled to standard benefits including:

- participation in a profit sharing and retirement savings plan
- vacation days
- life insurance
- medical/dental insurance

The remaining provisions of each agreement are also substantially the same.

The term of employment for each is month to month with termination:

- upon the death of the employee
- at the election of MKS if the employee fails or refuses to perform
- at the election of MKS if the employee commits any acts not in MKS' best interest

Payment by MKS upon termination depends on how employment is terminated:

- if employment is terminated by death, MKS must pay the employee's estate the compensation owed to him at the end of the month of his death
- if employment is terminated at the election of MKS because the employee fails or refuses to perform, MKS must pay the employee through the last day of actual employment

Each of the agreements contains non-competition provisions during the term of employment and for the period of one year after termination of employment. Under these provisions, Messrs. Weigner, Berlinghieri, Stewart, Klimm and Younger may not:

- engage in any competitive business or activity
- for the 12 months subsequent to termination, work for, employ, become a partner with, or cause to be employed, any employee, officer or agent of MKS
- for the 12 months subsequent to termination, give, sell or lease any competitive services or goods to any customer of MKS
- have any financial interest in or be a director, officer, stockholder, partner, employee or consultant to any competitor of MKS

#### SECTION 16(a) BENEFICIAL OWNERSHIP REPORTING COMPLIANCE

Section 16(a) of the Exchange Act ("Section 16(a)") requires executive officers, directors, and persons who beneficially own more than ten percent (10%) of the Company's stock to file initial reports of ownership on Form 3 and reports of changes in ownership on Form 4 with the Commission and any national securities exchange on which the Company's securities are registered. Executive officers, directors and greater than ten percent (10%) beneficial owners are required by the Commission's regulations to furnish the Company with copies of all Section 16(a) forms they file.

Based solely on a review of the copies of such forms furnished to the Company and written representations from the executive officers and directors pursuant to Item 405 of Regulation S-K, the Company believes that Peter Solomon is the only "reporting person" (as defined in Item 405) who failed to file on a timely basis a report required by Section 16(a). Dr. Solomon timely filed the Form 3 required upon his appointment as an executive officer; however, he failed to report at that time the 200 shares of Common Stock held directly by him and the 42,053 shares held in escrow on his own behalf and that of his spouse. These holdings were reported on Dr. Solomon's Form 5. The Company believes that all other of its executive officers, directors and greater than ten percent (10%) beneficial owners complied with all applicable Section 16(a) filing requirements.

COMPARATIVE STOCK PERFORMANCE

The following graph compares the cumulative total stockholder return (assuming reinvestment of dividends) from investing \$100 on March 30, 1999 (the Company's first trading day), and plotted at the last trading days of each fiscal quarter in the years ended December 31, 1999, 2000 and 2001, in each of (i) the Company's Common Stock; (ii) a Peer Group Index of semiconductor equipment/material manufacturers (the "MG Group Index"), compiled by Media General Financial Services, Inc. ("Media General"); and (iii) the Nasdaq Market Index of companies (the "Nasdaq Market Index"). The graph was compiled by Media General. The stock price performance on the graph below is not necessarily indicative of future price performance. The Company's Common Stock is listed on the Nasdaq National Market under the ticker symbol "MKSI".

PERFORMANCE GRAPH

COMPARISON OF CUMULATIVE TOTAL RETURN  
OF ONE OR MORE COMPANIES, PEER GROUPS,  
INDUSTRY INDEXES AND/OR BROAD MARKETS

[PERFORMANCE GRAPH]

ASSUMES \$100 INVESTED ON MAR. 30, 1999  
ASSUMES DIVIDEND REINVESTED  
FISCAL YEAR ENDING DEC. 31, 2001

FISCAL QUARTER ENDED

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-----  
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COMPANY/INDEX/MARKET

3/30/99 3/31/99  
6/30/99 9/30/99  
12/31/99 3/31/00  
6/30/00 9/30/00  
12/31/00 3/31/01 ----

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-----  
-----  
-----

----- MKS

Instruments, Inc.....	100.00	95.11	132.44
	158.22	256.89	359.11
	278.22	194.67	110.22
133.06 MG Group			
Index.....	100.00	100.00	127.86
	133.86	219.29	315.68
	287.14	186.46	133.76
144.77 NASDAQ Market			
Index.....	100.00		
	100.00	108.81	110.58
	163.32	185.83	159.83
	147.49	99.12	74.73

FISCAL QUARTER ENDED

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-----  
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COMPANY/INDEX/MARKET

6/30/01 9/30/01  
12/31/01 -----

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-----  
-----  
-----

--- ----- MKS

Instruments, Inc.....	204.81	126.22	192.21
MG Group			
Index.....	171.67	98.42	145.93
NASDAQ Market			
Index.....	87.58		
	60.82	79.27	

Note: Base price date is 3/30/1999

## PROPOSAL TWO

### APPROVAL OF AN AMENDMENT INCREASING AUTHORIZED COMMON STOCK

On March 29, 2002, the Board of Directors of MKS approved, subject to stockholder approval, an amendment to MKS' Restated Articles of Organization increasing the number of authorized shares of Common Stock from 75,000,000 to 200,000,000.

The authorized Common Stock of MKS currently consists of 75,000,000 shares, no par value per share, of which as of February 28, 2002 (i) 50,140,250 shares were outstanding; (ii) options to purchase 7,543,360 shares of Common Stock of the Company were outstanding; and (iii) options to purchase 2,608,403 shares of Common Stock of the Company were available for future grants pursuant to the Company's existing stock plans.

The Board of Directors believes that the authorization of additional shares of Common Stock is desirable to provide shares for issuance in connection with the exercise of stock options expected to be granted under MKS' option and stock purchase plans, and in connection with possible future stock splits, stock dividends, financings, joint ventures, acquisitions and other general corporate purposes. Other than as described above, however, there are no existing plans, understandings or agreements for the issuance of any shares of Common Stock. If the amendment is adopted by MKS' stockholders, the Board of Directors will have the authority to issue shares of Common Stock without the necessity of further stockholder action. The issuance of additional shares of Common Stock, while providing desirable flexibility in connection with possible acquisitions and other corporate purposes, would have the effect of diluting MKS' current stockholders and could have the effect of making it more difficult for a third party to acquire, or of discouraging a third party from attempting to acquire, control of MKS. Holders of the Common Stock have no preemptive rights with respect to any shares which may be issued in the future.

### BOARD RECOMMENDATION

THE BOARD OF DIRECTORS BELIEVES THAT THE PROPOSED AMENDMENT TO THE RESTATED ARTICLES OF ORGANIZATION IS IN THE BEST INTERESTS OF MKS AND ITS STOCKHOLDERS AND THEREFORE RECOMMENDS A VOTE "FOR" THIS PROPOSAL.

## PROPOSAL THREE

### APPROVAL OF AMENDMENT OF THE AMENDED AND RESTATED 1995 STOCK INCENTIVE PLAN

#### OVERVIEW.

MKS' Board of Directors believes that the future success of MKS depends on its ability to attract, retain and motivate key employees. Under MKS' Amended and Restated 1995 Stock Incentive Plan, as amended (the "Stock Incentive Plan"), MKS is currently authorized to issue options to purchase up to an aggregate of 9,750,000 shares of Common Stock. As of February 28, 2002, there were 2,196,957 shares available for future grant under the Stock Incentive Plan. Accordingly, on March 29, 2002 MKS' Board of Directors adopted, subject to stockholder approval, an amendment to the Stock Incentive Plan, to increase from 9,750,000 shares to 15,000,000 the maximum number of shares of Common Stock available for sale upon exercise of options granted under the Stock Incentive Plan.

## SUMMARY OF THE STOCK INCENTIVE PLAN.

The following summary of the Stock Incentive Plan is qualified in its entirety by reference to the full text of the Amended and Restated 1995 Stock Incentive Plan, as amended (the "Stock Incentive Plan"), a copy of which is attached as Appendix B to the electronic copy of this Proxy Statement filed with the Commission and may be accessed from the Commission's home page ([www.sec.gov](http://www.sec.gov)). In addition, a copy of the Stock Incentive Plan may be obtained by making a written request to MKS.

### Description of Awards.

The Stock Incentive Plan provides for the grant of incentive stock options, nonstatutory stock options, stock appreciation rights, performance shares and awards of restricted stock and unrestricted stock. An aggregate of 9,750,000 shares of Common Stock may be issued pursuant to the Stock Incentive Plan (subject to adjustment for certain changes in MKS' capitalization). No award may be made under the Stock Incentive Plan after November 29, 2005.

### Administration.

The Stock Incentive Plan is administered by the Board of Directors and the Compensation Committee. The Board of Directors has the authority to grant awards under the Stock Incentive Plan and to accelerate, waive or amend certain provisions of outstanding awards. The Board of Directors has authorized the Compensation Committee to administer certain aspects of the Stock Incentive Plan and has authorized the Chief Executive Officer of MKS to grant awards to non-executive officer employees. Subject to adjustment for certain changes in MKS' capitalization, the maximum number of shares represented by awards granted by our Chief Executive Officer under the Stock Incentive Plan may not exceed 35,000 shares to any one employee. The maximum number of shares with respect to which awards may be granted to any employee in any calendar year is 1,350,000 shares.

### Incentive Stock Options and Nonstatutory Options.

Optionees receive the right to purchase a specified number of shares of Common Stock at some time in the future at an option price and subject to such terms and conditions as are specified at the time of the grant. Incentive stock options and options that the Board of Directors or Compensation Committee intends to qualify as performance-based compensation under Section 162(m) of the Internal Revenue Code, may not be granted at an exercise price less than the fair market value of the Common Stock on the date of grant (or less than 110% of the fair market value in the case of incentive stock options granted to optionees holding 10% or more of the voting stock of MKS or any of its subsidiaries). All non-qualified options may be granted at an exercise price that may be less than, equal to or greater than the fair market value of the Common Stock on the date of grant.

### Restricted and Unrestricted Stock.

Restricted stock awards entitle recipients to acquire shares of Common Stock, subject to the right of MKS to repurchase all or part of such shares at their issue price from the recipient in the event that the conditions specified in the applicable stock award are not satisfied prior to the end of the applicable restriction period established for such award, or portion of such award, in the case of restrictions which lapse ratably.

All of the employees, officers, directors, consultants and advisors of MKS and its subsidiaries who are expected to contribute to MKS' future growth and success are eligible to participate in the Stock Incentive Plan.

## Stock Appreciation Rights and Performance Shares.

A stock appreciation right is based on the value of Common Stock and entitles the holder to receive consideration to the extent that the fair market value on the date of exercise of the shares of Common Stock underlying the right exceeds the fair market value of the underlying shares on the date the right was granted. A performance share award entitles the recipient to acquire shares of Common Stock upon the attainment of specified performance goals.

### FEDERAL INCOME TAX CONSEQUENCES.

The following generally summarizes the United States federal income tax consequences that will arise with respect to awards granted under the Stock Incentive Plan and with respect to the sale of Common Stock acquired under the Stock Incentive Plan. This summary is based on the tax laws in effect as of the date of this proxy statement. Changes to these laws could alter the tax consequences described below.

**Incentive Stock Options.** A participant will not have income upon the grant of an incentive stock option. Also, except as described below, a participant will not have income upon exercise of an incentive stock option if the participant has been employed by MKS or a majority-owned corporate subsidiary at all times beginning with the option grant date and ending three months before the date the participant exercises the option. If the participant has not been so employed during that time, then the participant will be taxed as described below under "Nonstatutory Stock Options." The exercise of an incentive stock option may subject the participant to the alternative minimum tax.

A participant will have income upon the sale of the stock acquired under an incentive stock option at a profit (if sales proceeds exceed the exercise price). The type of income will depend on when the participant sells the stock. If a participant sells the stock more than two years after the option was granted and more than one year after the option was exercised, then all of the profit will be long-term capital gain. If a participant sells the stock prior to satisfying these waiting periods, then the participant will have engaged in a disqualifying disposition and a portion of the profit will be ordinary income and a portion may be capital gain. This capital gain will be long-term if the participant has held the stock for more than one year and otherwise will be short-term. If a participant sells the stock at a loss (sales proceeds are less than the exercise price), then the loss will be a capital loss. This capital loss will be long-term if the participant held the stock for more than one year and otherwise will be short-term.

**Nonstatutory Stock Options.** A participant will not have income upon the grant of a nonstatutory stock option. A participant will have compensation income upon the exercise of a nonstatutory stock option equal to the value of the stock on the day the participant exercised the option less the exercise price. Upon sale of the stock, the participant will have capital gain or loss equal to the difference between the sales proceeds and the value of the stock on the day the option was exercised. This capital gain or loss will be long-term if the participant has held the stock for more than one year and otherwise will be short-term.

**Restricted Stock.** A participant will not have income upon the grant of restricted stock unless an election under Section 83(b) of the Internal Revenue Code is made within 30 days of the date of grant. If a timely 83(b) election is made, then a participant will have compensation income equal to the value of the stock less the purchase price. When the stock is sold, the participant will have capital gain or loss equal to the difference between the sales proceeds and the value of the stock on the date of grant. If the participant does not make an 83(b) election, then when the stock vests the participant will have compensation income equal to the value of the stock on the vesting date less the purchase price. When the stock is sold, the participant will have capital gain or loss equal to the sales proceeds less the value of the stock on the vesting date. Any capital gain or loss will be long-term if the participant held the stock for more than one year and otherwise will be short-term.

Tax Consequences to MKS. The grant of an award under the Stock Incentive Plan will have no tax consequences to MKS, except that it will be entitled to a business-expense deduction when a participant has compensation income. Any such deduction will be subject to the limitations of Section 162(m) of the Internal Revenue Code.

#### BOARD RECOMMENDATION

THE BOARD OF DIRECTORS BELIEVES THAT THE PROPOSED AMENDMENT TO THE AMENDED AND RESTATED 1995 STOCK INCENTIVE PLAN IS IN THE BEST INTERESTS OF MKS AND ITS STOCKHOLDERS AND THEREFORE RECOMMENDS A VOTE "FOR" THIS PROPOSAL.

#### PROPOSAL FOUR

#### APPROVAL OF AMENDMENT OF THE AMENDED AND RESTATED 1999 EMPLOYEE STOCK PURCHASE PLAN

#### OVERVIEW.

MKS' Board of Directors adopted the Amended and Restated 1999 Employee Stock Purchase Plan, as amended (the "Employee Stock Purchase Plan"), to provide eligible employees of MKS and certain of its subsidiaries with opportunities to purchase shares of Common Stock. Under MKS' Employee Stock Purchase Plan, MKS is currently authorized to sell to its eligible employees, through payroll deductions, up to an aggregate of 450,000 shares of Common Stock. As of February 28, 2002, there were 218,527 shares available for future grant under the Employee Stock Purchase Plan. Accordingly, on March 29, 2002, MKS' Board of Directors adopted an amendment, subject to stockholder approval, to the Employee Stock Purchase Plan that increased the number of shares of Common Stock available for sale under the Employee Stock Purchase Plan from 450,000 to 700,000, subject to adjustment to certain changes in MKS' capitalization.

#### SUMMARY OF THE EMPLOYEE STOCK PURCHASE PLAN.

The following summary of the Employee Stock Purchase Plan is qualified in its entirety by reference to the full text of the Employee Stock Purchase Plan, a copy of which is attached as Appendix C to the electronic copy of this Proxy Statement filed with the Commission and may be accessed from the Commission's home page ([www.sec.gov](http://www.sec.gov)). In addition, a copy of the Employee Stock Purchase Plan may be obtained by making a written request to MKS.

#### Description of the Plan.

The Employee Stock Purchase Plan permits employees of MKS and its designated subsidiaries to purchase shares of Common Stock through a series of offerings. Each offering may last up to one year. Offerings under the Employee Stock Purchase Plan commence every six months, so at any given point in time, MKS may be conducting more than one offering. However, employees are only eligible to participate in one offering at a time. Each eligible employee may elect to have amounts withheld from his or her compensation, which amounts will accrue in an account for such employee during the period of an offering. On the last day of the offering period, funds that have accrued in this account will be used to purchase Common Stock, subject to certain limitations, at a purchase price that is generally 85% of the closing price of the Common Stock on either the initial date of each offering, or on the last day of the offering period, whichever is less.

#### Administration.

The Employee Stock Purchase Plan is administered by the Board of Directors or by a committee appointed by the Board of Directors. The Board of Directors or its committee has the authority to grant awards and to adopt, amend and repeal such administrative rules, guidelines and practices relating to the Employee Stock Purchase Plan as it shall deem advisable. The Board of Directors may also correct any defect, supply any omission or reconcile any inconsistency in the Employee Stock Purchase Plan in the manner and to the extent it deems expedient to carry the Employee Stock Purchase Plan into effect. The Board of Directors or its committee is the sole and final judge of such expediency and its decisions are final and binding. No member of the Board of Directors or person acting pursuant to authority delegated by the Board of Directors is liable for any action or determination relating to or under the Employee Stock Purchase Plan made in good faith.

#### Eligibility.

Persons eligible to participate in an offering under the Employee Stock Purchase Plan are generally those employees who (i) are customarily employed by MKS for more than twenty (20) hours a week and for more than five (5) months in a calendar year; (ii) have been employed by MKS for at least three (3) months prior to enrollment; (iii) are MKS' employees on the date that the option is offered; and (iv) do not own 5% or more of the total combined voting power or value of all classes of MKS' stock or that of its subsidiaries.

#### Limitation.

No employee may be granted an option under the Employee Stock Purchase Plan which permits the employee's rights to purchase Common Stock under the Employee Stock Purchase Plan and any other MKS stock purchase plan, to accrue at a rate which exceeds \$25,000 of the fair market value of Common Stock for each calendar year in which the option to purchase such stock is outstanding at any time.

#### Payroll Deductions.

Eligible employees may authorize a payroll deduction up to a maximum of 10% of their compensation. Payroll deductions are then credited to the employee's accounts and are withheld in whole percentages only. Interest will not be paid on any account. The employee may decrease or discontinue payroll deductions once during a plan period by filing a new payroll deduction authorization form. However, the employee may not increase payroll deduction during a plan period. If the employee elects to discontinue payroll deductions, but does not elect to withdraw funds, the funds in the account will be used to purchase Common Stock on the last day of the plan period.

#### Grant of Option.

On the beginning date of each plan period, MKS will grant each employee who is participating in the Employee Stock Purchase Plan, an option to purchase a certain maximum number of shares on the last day of the plan period. That amount is determined by multiplying \$2,083 by the number of full months in the offering period and dividing the result by the closing price of Common Stock on the beginning date of the plan period. The employee does not become a stockholder of the Common Stock granted by the option until the shares are purchased and issued.

#### Purchase Price.

The purchase price of the shares of Common Stock to be sold pursuant to any given offering is equal to the lesser of (i) 85% of the closing price of Common Stock on the first business day of the plan period; or

(ii) 85% of the closing price of Common Stock on the last trading day of the purchase period. For so long as Common Stock is traded on the Nasdaq National Market, the closing price of Common Stock shall be the last reported sales price.

#### Exercise of Option.

An employee's option to purchase shares is exercised automatically on the last trading date of the plan period. Upon exercise, the employee will purchase the maximum number of full or fractional shares of Common Stock allowable on this date based on the applicable purchase price and the accumulated payroll deductions in the employee's account, subject in all cases to the limits described above.

#### Changes in Capitalization.

In the event of a stock split, a subdivision of outstanding shares of Common Stock, or payment of a dividend in Common Stock, the number of shares and the share limitation, approved for the Employee Stock Purchase Plan, shall be modified proportionately.

#### Merger or Consolidation.

In the event of a merger or consolidation of MKS with another corporation in which the holders of MKS' capital stock before the merger or consolidation continue to hold at least 80% of the voting power of the capital stock in the newly merged corporation, those who hold options under the Employee Stock Purchase Plan will, per exercisable option, upon an exercise of such options under the terms described in the Employee Stock Purchase Plan, be entitled to purchase what the holders of MKS' capital stock received per share during the merger or consolidation.

In the event of a merger or consolidation of MKS with another corporation in which the holders of MKS' capital stock before the merger or consolidation do not hold at least 80% of the voting power of the capital stock in the newly merged corporation, and the merger or consolidation does not constitute a sale of substantially all of the Company's assets, the options outstanding under the Employee Stock Purchase Plan will be cancelled on the date of such merger or consolidation. However, notice of this cancellation will be provided, and each option holder will have the right to exercise his or her options based on payroll deductions credited in the account at a date determined by the Board of Directors or its committee, but not less than ten days prior to such transaction.

#### FEDERAL INCOME TAX CONSEQUENCES.

The following generally summarizes the United States federal income tax consequences that will arise with respect to participation in the Employee Stock Purchase Plan and with respect to the sale of Common Stock acquired under the Employee Stock Purchase Plan. This summary is based on the tax laws in effect as of the date of this Proxy Statement. Changes to these laws could alter the tax consequences described below.

**Tax Consequences to Participants.** A participant will not have income upon enrolling in the Employee Stock Purchase Plan or upon purchasing stock at the end of an offering.

A participant may have both compensation income and capital gain income if the participant sells stock that was acquired under the Employee Stock Purchase Plan at a profit (if sales proceeds exceed the purchase price). The amount of each type of income will depend on when the participant sells the stock. If the participant sells the stock more than two years after the commencement of the offering during which the stock

was purchased and more than one year after the date that the participant purchased the stock, then the participant will have compensation income equal to the lesser of:

- 15% of the value of the stock on the day the offering commenced; and
- the participant's profit.

Any excess profit will be long-term capital gain.

If the participant sells the stock prior to satisfying these waiting periods, then he or she will have engaged in a disqualifying disposition. Upon a disqualifying disposition, the participant will have compensation income equal to the value of the stock on the day he or she purchased the stock less the purchase price. If the participant's profit exceeds the compensation income, then the excess profit will be capital gain. This capital gain will be long-term if the participant has held the stock for more than one year and otherwise will be short-term.

If the participant sells the stock at a loss (if sales proceeds are less than the purchase price), then the loss will be a capital loss. This capital loss will be long-term if the participant has held the stock for more than one year and otherwise will be short-term.

Tax Consequences to MKS. There will be no tax consequences to MKS except that it will be entitled to a business-expense deduction when a participant has compensation income upon a disqualifying disposition. Any such deduction will be subject to the limitations of Section 162(m) of the Internal Revenue Code.

#### BOARD RECOMMENDATION

THE BOARD OF DIRECTORS BELIEVES THAT THE PROPOSED AMENDMENT TO THE AMENDED AND RESTATED 1999 EMPLOYEE STOCK PURCHASE PLAN IS IN THE BEST INTERESTS OF MKS AND ITS STOCKHOLDERS AND THEREFORE RECOMMENDS A VOTE "FOR" THIS PROPOSAL.

#### PROPOSAL FIVE

#### APPROVAL OF AMENDMENT OF THE INTERNATIONAL EMPLOYEE STOCK PURCHASE PLAN

#### OVERVIEW.

MKS' Board of Directors adopted the International Employee Stock Purchase Plan, as amended (the "International Employee Stock Purchase Plan"), to provide eligible employees of certain non-United States subsidiaries of MKS with opportunities to purchase shares of Common Stock. Under MKS' International Employee Stock Purchase Plan, MKS is currently authorized to sell to its eligible employees of designated subsidiaries, through payroll deductions, up to an aggregate of 50,000 shares of Common Stock. As of February 28, 2002, there were 29,419 shares available for future grant under the International Employee Stock Purchase Plan. Accordingly, on March 29, 2002, MKS' Board of Directors adopted, subject to stockholder approval, an amendment to the International Employee Stock Purchase Plan that increased the number of shares of Common Stock available for issuance under the International Employee Stock Purchase Plan from 50,000 to 75,000, subject to adjustment for certain changes in MKS' capitalization.

## SUMMARY OF THE INTERNATIONAL EMPLOYEE STOCK PURCHASE PLAN.

The following summary of the International Employee Stock Purchase Plan is qualified in its entirety by reference to the full text of the International Employee Stock Purchase Plan, a copy of which is attached as Appendix D to the electronic copy of this Proxy Statement filed with the Commission and may be accessed from the Commission's home page ([www.sec.gov](http://www.sec.gov)). In addition, a copy of the International Employee Stock Purchase Plan may be obtained by making a written request to MKS.

### Description of the Plan.

The International Employee Stock Purchase Plan permits employees of MKS and its designated subsidiaries to purchase shares of Common Stock through a series of offerings. Each offering may last up to one year. Offerings under the International Employee Stock Purchase Plan commence every six months, so at any given point in time, MKS may be conducting more than one offering. However, employees are only eligible to participate in one offering at a time. Each eligible employee may elect to have amounts withheld from his or her which amounts will accrue in an account for such employee during the period of an offering. On the last day of the offering period, funds that have accrued in this account will be used to purchase Common Stock, subject to certain limitations, at a purchase price that is generally 85% of the closing price of the Common Stock on either the initial date of each offering, or on the last day of the offering period, whichever is less.

### Administration.

The International Employee Stock Purchase Plan is administered by the Board of Directors or by a committee appointed by the Board of Directors. The Board of Directors is elected by the shareholders in accordance with the provisions of the Company's Amended and Restated Articles of Organization and its Amended and Restated Bylaws.

The Board of Directors or its committee has the authority to grant awards and to adopt, amend and repeal such administrative rules, guidelines and practices relating to the International Employee Stock Purchase Plan as it shall deem advisable. The Board of Directors may also correct any defect, supply any omission or reconcile any inconsistency in the International Employee Stock Purchase Plan in the manner and to the extent it deems expedient to carry the International Employee Stock Purchase Plan into effect. The Board of Directors or its committee is the sole and final judge of such expediency and its decisions are final and binding. The Board of Directors or its committee may also establish additional conditions or provisions for the participation of our eligible employees in the International Employee Stock Purchase Plan in order to comply with the tax, securities and other laws and regulation of the countries in which the Company's eligible employees reside, even if such conditions or provisions increase the benefits accruing to the Company's eligible employees under the International Employee Stock Purchase Plan. No member of the Board of Directors or person acting pursuant to authority delegated by the Board of Directors is liable for any action or determination relating to or under the International Employee Stock Purchase Plan made in good faith.

### Eligibility.

Persons eligible to participate in an offering under the International Employee Stock Purchase Plan, to the extent permitted by local law, are generally those employees who (i) are customarily employed by a designated non-U.S. subsidiary for more than 20 hours a week and for more than five months in a calendar year; (ii) have been employed by a designated non-U.S. subsidiary for at least three months prior to enrollment; (iii) are MKS' employees of a designated non-U.S. subsidiary on the day the option is offered; and (iv) do not own 5% or more of the total combined voting power or value of all classes of MKS' stock.

#### Limitation.

No employee may be granted an option under the International Employee Stock Purchase Plan which permits the employee's rights to purchase Common Stock under the International Employee Stock Purchase Plan and any other stock purchase plan of MKS' and its subsidiaries, to accrue at a rate which exceeds U.S. \$25,000 of the fair market value of Common Stock for each calendar year in which the option is outstanding at any time.

#### Tax Withholding.

The employee's enrollment in the International Employee Stock Purchase Plan will authorize MKS to deduct from the employee's compensation the amount necessary for payment or reimbursement of any tax liability payable by the employee because of a grant of options to the employee under the Employee Stock Purchase Plan, the exercise of options under the Employee Stock Purchase Plan, or the sale of any stock acquired through the exercise of options.

#### Payroll Deductions.

Eligible employees may authorize a payroll deduction up to a maximum of 10% of their compensation. Payroll deductions are then credited to the employee's accounts and are withheld in whole percentages only. Interest will not be paid on any account. The employee may decrease or discontinue payroll deductions once during a plan period by filing a new payroll deduction authorization form. However, the employee may not increase payroll deduction during a plan period. All payroll deductions will be converted into U.S. currency at such time or times as is approved by the Board of Directors or its committee.

#### Grant of Option.

On the beginning date of each plan period, MKS will grant the employee who is participating in the International Employee Purchase Plan, an option to purchase a certain number of shares on the last day of the plan period. That amount is determined by multiplying U.S. \$2,083 by the number of full months in the offering period and dividing the results by the closing price of MKS' stock on the beginning date of the plan period. An employee does not become a stockholder of the stock subject to an option until the shares are purchased and issued.

#### Purchase Price.

The purchase price of the shares of Common Stock to be sold pursuant to any given plan period is equal to the lesser of (i) 85% of the fair market value of Common Stock on the first business day of the plan period or (ii) 85% of the fair market value of Common Stock on the last day of the offering period. For so long as the Common Stock is traded on the Nasdaq National Market, the closing price of Common Stock shall be the last reported sales price.

#### Exercise of Option.

An employee's option to purchase shares is exercised automatically on the last trading date of the plan period. Upon exercise, the employee will purchase the maximum number of full or fractional shares of Common Stock allowable on this date based on the applicable purchase price and the accumulated payroll deductions in the employee's account, subject in all cases to the limits described above.

## Changes in Capitalization.

In the event of a subdivision of outstanding shares of Common Stock, or payment of a dividend in Common Stock, the number of shares and the share limitation, approved for the International Employee Stock Purchase Plan, shall be modified proportionately.

## Merger or Consolidation.

In the event of a merger or consolidation of MKS with another corporation in which the stockholders of MKS' capital stock before the merger or consolidation continue to hold at least 80% of the voting power of the capital stock in the newly merged corporation, those who hold options under the International Employee Stock Purchase Plan, will per exercisable option, upon an exercise of such options under the terms described in the International Employee Stock Purchase Plan, be entitled to purchase what the holders of MKS' capital stock received per share during the merger or consolidation.

In the event of a merger or consolidation of MKS with another corporation in which the holders of MKS' capital stock before the merger or consolidation do not hold at least 80% of the voting power of the capital stock in the newly merged corporation, and the merger or consolidation does not constitute a sale of substantially all of the Company's assets, the options outstanding under the International Employee Stock Purchase Plan shall be cancelled on the date of such merger or consolidation, provided that notice of such cancellation will be given, and each option holder will have the right to exercise his or her options based on payroll deductions credited in the account at a date determined by the Board of Directors or its committee, but not less than ten days before the date of the transaction.

## CERTAIN TAX CONSEQUENCES FOR NON-U.S. PARTICIPANTS IN MKS'S INTERNATIONAL EMPLOYEE STOCK PURCHASE PLAN.

The following is a general discussion of certain material U.S. federal tax consequences to a non-U.S. person who receives and exercises options to purchase shares of Common Stock under MKS's International Employee Stock Purchase Plan, and who disposes of Common Stock following such exercise. Each non-U.S. participant in the International Employee Stock Purchase Plan should consult a tax advisor regarding the U.S. federal, state, local, estate, gift and all non-U.S. tax consequences of participating in MKS's International Employee Stock Purchase Plan. This discussion does not consider, among other things, U.S. state and local or non-U.S. tax consequences. This summary is based on the tax laws in effect as of the date of this Proxy Statement. Changes to these laws could alter the tax consequences described below, possibly with retroactive effect.

As used in this discussion, the term non-U.S. participant means an individual participant in MKS's International Employee Stock Purchase Plan who is not, for U.S. federal income tax purposes, a citizen or resident of the United States. As used in this discussion, the term non-U.S. holder means an individual beneficial owner of Common Stock who is not, for U.S. federal income tax purposes, a citizen or resident of the United States.

An individual may be treated as a resident of the United States in any calendar year for U.S. federal income tax purposes, instead of as a nonresident, if, among other things, such individual is physically present in the United States on at least 31 days in that calendar year and for an aggregate of at least 183 days during the three-year period ending on December 31 of that calendar year, counting all of the days physically present in the United States in the current year, one-third of the days present in the immediately preceding year and one-sixth of the days present in the second preceding year. Residents are taxed for U.S. federal income tax purposes as if they were U.S. citizens.

#### Receipt and Exercise of Option to Purchase Common Stock.

A non-U.S. participant generally will not be subject to any U.S. federal income tax or withholding tax upon the receipt of an option to purchase Common Stock under the International Employee Purchase Plan. A non-U.S. participant generally will not be subject to any U.S. federal income tax or withholding tax upon the exercise of an option to purchase Common Stock under the International Employee Stock Purchase Plan.

#### Gain on Disposition of Common Stock.

A non-U.S. holder generally will not be subject to any U.S. federal income tax or withholding tax on any gain recognized on a sale or other disposition of Common Stock, whether or not such disposition is deemed to be a "disqualifying disposition", unless, among other things: (i) the gain is effectively connected with the non-U.S. holder's conduct of a trade or business in the United States and, in the event that an income tax treaty applies, is also attributable to a permanent establishment maintained by the non-U.S. holder in the United States; (ii) the non-U.S. holder is an individual who is present in the United States for 183 or more days in the taxable year of the disposition and certain other requirements are met; or (iii) the holder is subject to tax pursuant to U.S. federal income tax provisions applicable to certain U.S. expatriates.

#### U.S. Estate Tax Consequences.

Common Stock that is owned or is treated as owned by a non-U.S. holder at the time of death will be included in that individual's gross estate for U.S. federal estate tax purposes, unless an applicable estate tax treaty provides otherwise.

#### Tax Consequences to MKS.

There will be no U.S. federal income tax consequences to MKS in connection with transactions relating to MKS's International Employee Stock Purchase Plan, except that MKS may be entitled to a deduction when a participant has compensation income upon a disqualifying disposition. Any such deduction will be subject to the limitations of Section 162(m) of the Code.

#### BOARD RECOMMENDATION

THE BOARD OF DIRECTORS BELIEVES THAT THE PROPOSED AMENDMENT TO THE INTERNATIONAL EMPLOYEE STOCK PURCHASE PLAN IS IN THE BEST INTERESTS OF MKS AND ITS STOCKHOLDERS AND THEREFORE RECOMMENDS A VOTE "FOR" THIS PROPOSAL.

#### PROPOSAL SIX

##### RATIFICATION OF APPOINTMENT OF INDEPENDENT ACCOUNTANTS

On March 18, 2002, the Board of Directors, on the recommendation of its Audit Committee, appointed the firm of PwC as the Company's independent accountants for the fiscal year of the Company ending December 31, 2002. PwC was the Company's independent accountants for the fiscal year ended December 31, 2001.

Representatives of PwC are expected to be present at the Annual Meeting and will have the opportunity to make a statement if they so desire and will be available to respond to appropriate questions from stockholders. In the event that the ratification of the appointment of PwC as the independent accountants for the Company is not obtained at the Annual Meeting, the Board of Directors will reconsider its appointment.

THE BOARD OF DIRECTORS BELIEVES THAT THE PROPOSAL TO RATIFY THE APPOINTMENT OF PRICEWATERHOUSECOOPERS LLP AS INDEPENDENT ACCOUNTANTS OF THE COMPANY FOR THE FISCAL YEAR ENDING DECEMBER 31, 2002 IS IN THE BEST INTERESTS OF MKS AND ITS STOCKHOLDERS AND THEREFORE RECOMMENDS A VOTE "FOR" THIS PROPOSAL.

#### OTHER MATTERS

The Board of Directors does not know of any other matters which may come before the meeting. However, if any other matters are properly presented to the meeting, it is the intention of the persons named in the accompanying proxy to vote, or otherwise act, in accordance with their judgment on such matters.

All costs of solicitation of proxies will be borne by the Company. In addition to solicitations by mail, the Company's directors, officers and regular employees, without additional remuneration, may solicit proxies by telephone, telegraph and personal interviews and the Company reserves the right to retain outside agencies for the purpose of soliciting proxies. Brokers, custodians and fiduciaries will be requested to forward proxy soliciting material to the owners of stock held in their names, and the Company will reimburse them for their reasonable out-of-pocket expenses incurred in connection with the distribution of proxy materials.

#### DEADLINE FOR SUBMISSION OF STOCKHOLDER PROPOSALS FOR THE 2003 ANNUAL MEETING

Proposals of stockholders intended to be presented at the 2003 Annual Meeting of Stockholders must be received by the Company at its principal office in Andover, Massachusetts not later than December 17, 2002, for inclusion in the proxy statement for that meeting.

In addition, MKS' By-laws require that MKS be given advance notice of matters that stockholders wish to present for action at an Annual Meeting of stockholders (other than matters included in MKS' proxy statement in accordance with Rule 14a-8 of the Exchange Act). The required written notice must be delivered to the Clerk of MKS at the principal offices of MKS at least sixty (60) days prior to the Annual Meeting, but no more than ninety (90) days prior to such meeting. However, if less than forty (40) days notice of the Annual Meeting is provided to the stockholders, the written notice of the stockholder must be sent to the Clerk of MKS no later than ten (10) days after the notice of the Annual Meeting was received. The advance notice provisions of MKS's By-Laws contain the requirements of the written notice of stockholders and supersede the notice requirement contained in recent amendments to Rule 14a-4 under the Exchange Act.

#### IMPORTANT NOTICE REGARDING DELIVERY OF SECURITY HOLDER DOCUMENTS

Some banks, brokers and other nominee record holders may be participating in the practice of "householding" proxy statements and annual reports. This means that only one copy of our proxy statement or annual report may have been sent to multiple shareholders in your household. We will promptly deliver a separate copy of either document to you if you call or write us at the following address or phone number: MKS Instruments, Inc., Six Shattuck Road, Andover, Massachusetts 01810 (978) 975-2350, Attn: Investor Relations. If you want to receive separate copies of the annual report and proxy statement in the future, or if you are receiving multiple copies and would like to receive only one copy for your household, you should contact your bank, broker, or other nominee record holder, or you may contact us at the above address and phone number.

By Order of the Board of Directors

/s/ Richard S. Chute  
Richard S. Chute  
Clerk

April 17, 2002

THE BOARD OF DIRECTORS ENCOURAGES STOCKHOLDERS TO ATTEND THE MEETING. WHETHER OR NOT YOU PLAN TO ATTEND, YOU ARE URGED TO COMPLETE, DATE, SIGN AND RETURN THE ENCLOSED PROXY IN THE ACCOMPANYING ENVELOPE. A PROMPT RESPONSE WILL GREATLY FACILITATE ARRANGEMENTS FOR THE MEETING AND YOUR COOPERATION WILL BE APPRECIATED. STOCKHOLDERS WHO ATTEND THIS MEETING MAY VOTE THEIR STOCK PERSONALLY EVEN THOUGH THEY HAVE SENT IN THEIR PROXIES.

MKS INSTRUMENTS, INC.  
AUDIT COMMITTEE CHARTER

## PURPOSE

The primary purpose of the Audit Committee (the "Committee") is to assist the Board of Directors (the "Board") in fulfilling its responsibility to oversee management's conduct of the Company's financial reporting process, including by overseeing the financial reports and other financial information provided by the Company to any governmental or regulatory body, the public or other users thereof, the Company's systems of internal accounting and financial controls, and the annual independent audit of the Company's financial statements.

In discharging its oversight role, the Committee is empowered to investigate any matter brought to its attention with full access to all books, records, facilities and personnel of the Company and the power to retain outside counsel, auditors or other experts for this purpose. The Board and the Committee are in place to represent the Company's shareholders; accordingly, the outside auditor is ultimately accountable to the Board and the Committee.

The Committee shall review the adequacy of this Charter on an annual basis.

## MEMBERSHIP

The Committee shall be comprised of not less than three members of the Board, and the Committee's composition will meet the requirements of the Audit Committee Policy of the NASD.

Accordingly, all of the members will be directors:

1. Who have no relationship to the Company that may interfere with the exercise of their independence from management and the Company;
2. Who are able to read and understand fundamental financial statements, including the Company's balance sheet, income statement, and cash flow statement, or must become able to do so within a reasonable time after his or her appointment to the Committee. At least one member of the Committee must have past employment experience in finance or accounting, professional certification in accounting, or other comparable experience or background which result in the member having financial sophistication (such as being or having been a chief executive officer, chief financial officer or other senior officer with financial oversight responsibilities);
3. Who have not been an employee of the Company or any affiliate of the Company in the current year or in any of the past three years;
4. Who have no immediate family member who has been employed by the Company or an affiliate of the Company as an executive officer in any of the past three years (an immediate family member includes a person's spouse, parents, children, siblings, mother-in-law, father-in-law, brother-in-law, sister-in-law, son-in-law, daughter-in-law, and anyone who resides in a person's home);
5. Who is not employed as an executive of an entity other than the Company having a compensation committee which includes any of the Company's executives;

6. Who did not within the last fiscal year receive from the Company or any affiliate of the Company compensation -- other than benefits under a tax qualified retirement plan, compensation for director service or nondiscretionary compensation -- greater than \$60,000; and
7. Who has not in any of the past three years been a partner in, or controlling shareholder or executive of, a for profit business organization to which the Company made or from which the Company received payment (other than payment arising solely from investments in the Company's securities) that exceeds the greater of: (i) \$200,000; or (ii) more than 5% of the Company's or business organization's consolidated gross revenues.

#### KEY RESPONSIBILITIES

The Committee's job is one of oversight and it recognizes that the Company's management is responsible for preparing the Company's financial statements and that the outside auditors are responsible for auditing those financial statements. Additionally, the Committee recognizes that financial management, as well as the outside auditors, have more time, knowledge and more detailed information on the Company than do Committee members; consequently, in carrying out its oversight responsibilities, the Committee is not providing any expert or special assurance as to the Company's financial statements or any professional certification as to the outside auditor's work.

The following functions shall be the common recurring activities of the Committee in carrying out its oversight function. These functions are set forth as a guide with the understanding that the Committee may diverge from this guide as appropriate given the circumstances.

- The Committee shall review with management and the outside auditors the audited financial statements to be included in the Company's Annual Report on Form 10-K (or the Annual Report to Shareholders if distributed prior to the filing of Form 10-K) and review and consider with the outside auditors the matters required to be discussed by Statement of Auditing Standards ('SAS') No. 61.
- As a whole, or through the Committee chair, the Committee shall review with the outside auditors the matters (if any) required to be discussed by SAS No. 61 in connection with the interim financial reviews conducted by the outside auditors; this review will occur prior to the Company's filing of the Form 10-Q.
- The Committee shall discuss with management and the outside auditors the quality and adequacy of the Company's internal controls, accounting policies and estimates.
- The Committee shall review and reassess the adequacy of this Charter at least annually.
- The Committee shall:
  - request from the outside auditors annually, a formal written statement delineating all relationships between the auditor and the Company consistent with Independence Standards Board Standard Number 1;
  - discuss with the outside auditors any such disclosed relationships or services and their impact on the outside auditor's independence; and
  - recommend that the Board take appropriate action to oversee the independence of the outside auditor.
- The Committee, subject to any action that may be taken by the Board, shall have the ultimate authority and responsibility to select (or nominate for shareholder approval), evaluate and, where appropriate, replace the outside auditor.

- The Committee will prepare the report required by the rules of the Securities and Exchange Commission to be included in the Company's annual proxy statement, commencing with the proxy statement for the 2001 Annual Meeting.
- Based on the criteria set forth in Item 306(a) of Regulation S-K and, if so determined by the Committee, recommend to the Board that the audited financial statements for each fiscal year be included in the Company's Annual Report on Form 10-K in respect of such year.
- The Committee will perform such other functions as may be required by law, the Company's Articles of Organization or its By-Laws.
- The Committee shall annually inform the outside auditor, the Chief Financial Officer, the Controller, and the most senior other person, if any, responsible for the internal audit activities, that they should promptly contact the Committee or its Chairman about any significant issue or disagreement concerning the Company's accounting practices or financial statements that is not resolved to their satisfaction. Where such communications are made to the Chairman, he or she shall confer with the outside auditor concerning any such communications, and shall notify the other members of the Committee of any communications which the outside auditor or the Chairman in the exercise of his or her business judgment believes should be considered by the Committee prior to its next scheduled meeting.
- The Committee shall direct the outside auditor to use its best efforts to perform all reviews of interim financial information prior to disclosure by the Company of such information, and to discuss promptly with the Chairman of the Committee and the Chief Financial Officer any matters identified in connection with the auditor's review of interim financial information which are required to be discussed by Statement on Auditing Standards No. 61. The Chairman of the Committee shall discuss any such matters with the outside auditor, and shall notify the other members of the Committee of any discussions which the outside auditor or the Chairman in the exercise of his or her business judgment believes should be considered by the Committee prior to disclosure or filing of the interim financial information, or the Committee's next scheduled meeting.
- The Committee shall direct management to advise the Committee in the event that the Company proposes to disclose or file interim financial information prior to completion of review by the outside auditor.
- The Committee shall meet privately at least once per year with: (i) the outside auditor; (ii) the Chief Financial Officer; (iii) the Controller; and (iv) the most senior person (if any) responsible for the internal audit activities of the Company.

FIRST AMENDMENT TO  
AMENDED AND RESTATED 1995 STOCK INCENTIVE PLAN  
OF  
MKS INSTRUMENTS, INC.

The Amended and Restated 1995 Stock Incentive Plan (the "Plan") be and hereby is amended by deleting the last sentence of Section 3(b) thereof in its entirety and inserting in lieu thereof the following:

"The Chief Executive Officer of the Company may grant Awards to non-executive officer employees of the Company in amounts not to exceed 500,000 shares in the aggregate or 35,000 shares to any one employee."

Adopted by the Compensation Committee of the Board of Directors on October 18, 1999.

SECOND AMENDMENT TO  
AMENDED AND RESTATED 1995 STOCK INCENTIVE PLAN  
OF  
MKS INSTRUMENTS, INC.

The Amended and Restated 1995 Stock Incentive Plan (the "Plan") be and hereby is amended by deleting the first sentence of Section 4(a) thereof in its entirety and inserting in lieu thereof the following:

"Beginning July 1, 2000 and subject to adjustment under Section 4(c), the number of shares of Common Stock (as defined below in Section 4(d)) available for Awards under the Plan shall annually increase by 4% of the total shares of the Company's outstanding Common Stock on July 1 of each year. Such annual increase shall occur until such time as an aggregate number of shares of Common Stock which may be issued under the Plan is 9,750,000 shares."

Adopted by the Board of Directors on January 31, 2000.  
Approved by the Stockholders on May 17, 2000.

THIRD AMENDMENT TO  
AMENDED AND RESTATED 1995 STOCK INCENTIVE PLAN  
OF  
MKS INSTRUMENTS, INC.

The Amended and Restated 1995 Stock Incentive Plan (the "Plan") be and hereby is amended as follows:

(1) by deleting the first sentence of Section 4(a) thereof in its entirety and inserting in lieu thereof the following:

"Beginning July 1, 2001 and subject to adjustment under Section 4(c), the number of shares of Common Stock (as defined below in Section 4(d)) available for Awards under the Plan shall annually increase by 5% of the total shares of the Company's outstanding Common Stock on July 1 of each year. Such annual increase shall occur until such time as an aggregate number of shares of Common Stock which may be issued under the Plan is 9,750,000 shares."

(2) by deleting the last sentence of Section 3(b) thereof in its entirety and inserting in lieu thereof the following:

"The Chief Executive Officer of the Company may grant Awards to non-executive officer employees of the Company in amounts not to exceed 35,000 shares to any one employee."

Adopted by the Board of Directors on April 19, 2001.

FOURTH AMENDMENT TO  
AMENDED AND RESTATED 1995 STOCK INCENTIVE PLAN  
OF  
MKS INSTRUMENTS, INC.

The Amended and Restated 1995 Stock Incentive Plan, as amended be and hereby is amended as follows:

by deleting the first sentence of Section 4(a) thereof in its entirety and inserting in lieu thereof the following:

"Effective January 1, 2002 and subject to adjustment under Section 4(c), the number of shares of Common Stock (as defined below in Section 4(d)) available for Awards under the Plan: (i) shall annually increase by 5% of the total shares of the Company's outstanding Common Stock on January 1 of each year; and (ii) in the event of an increase in the total shares of the Company's Common Stock after January 1 of any such year in connection with the acquisition of any corporation, partnership or other business entity by the Company (whether by merger, stock purchase or otherwise), shall increase by 5% of such increased amount. Such increases shall occur until such time as the aggregate number of shares of Common Stock which may be issued under the Plan is 9,750,000 shares, subject to adjustment under Section 4(c)."

Adopted by the Board of Directors on January 23, 2002.

FIFTH AMENDMENT TO  
AMENDED AND RESTATED 1995 STOCK INCENTIVE PLAN  
OF  
MKS INSTRUMENTS, INC.

The Amended and Restated 1995 Stock Incentive Plan, as amended be and hereby is amended as follows:

by deleting the second sentence of Section 4(a) thereof in its entirety and inserting in lieu thereof the following:

"Such increases shall occur until such time as the aggregate number of shares of Common Stock which may be issued under the Plan is 15,000,000 shares, subject to adjustment under Section 4(c)."

Adopted by the Board of Directors on March 29, 2002.

Approved by the Stockholders on May \_\_, 2002.

MKS INSTRUMENTS, INC.

AMENDED AND RESTATED 1995 STOCK INCENTIVE PLAN

1. PURPOSE

The purpose of this Amended and Restated 1995 Stock Incentive Plan (the "Plan") of MKS Instruments, Inc., a Massachusetts corporation (the "Company"), is to advance the interests of the Company's stockholders by enhancing the Company's ability to attract, retain and motivate persons who make (or are expected to make) important contributions to the Company by providing such persons with equity ownership opportunities and performance-based incentives and thereby better aligning the interests of such persons with those of the Company's stockholders. Except where the context otherwise requires, the term "Company" shall include any present or future subsidiary corporations of MKS Instruments, Inc. as defined in Section 424(f) of the Internal Revenue Code of 1986, as amended, and any regulations promulgated thereunder (the "Code").

2. ELIGIBILITY

All of the Company's employees, officers, directors, consultants and advisors are eligible to be granted options, restricted stock, or other stock-based awards (each, an "Award") under the Plan. Any person who has been granted an Award under the Plan shall be deemed a "Participant."

3. ADMINISTRATION, DELEGATION

a. ADMINISTRATION BY BOARD OF DIRECTORS. The Plan will be administered by the Board of Directors of the Company (the "Board"). The Board shall have authority to grant Awards and to adopt, amend and repeal such administrative rules, guidelines and practices relating to the Plan as it shall deem advisable. The Board may correct any defect, supply any omission or reconcile any inconsistency in the Plan or any Award in the manner and to the extent it shall deem expedient to carry the Plan into effect and it shall be the sole and final judge of such expediency. All decisions by the Board shall be made in the Board's sole discretion and shall be final and binding on all persons having or claiming any interest in the Plan or in any Award. No director or person acting pursuant to the authority delegated by the Board shall be liable for any action or determination relating to or under the Plan made in good faith.

b. DELEGATION TO EXECUTIVE OFFICERS. To the extent permitted by applicable law, the Board may delegate to one or more executive officers of the Company the power to make Awards and exercise such other powers under the Plan as the Board may determine, provided that the Board shall fix the maximum number of shares subject to Awards and the maximum number of shares for any one Participant to be made by such executive officers. The Chief Executive Officer of the Company may grant Awards to non-executive officer employees of the Company in amounts not to exceed 300,000 shares in the aggregate or 20,000 shares to any one employee.

c. APPOINTMENT OF COMMITTEES. To the extent permitted by applicable law, the Board may delegate any or all of its powers under the Plan to one or more committees or subcommittees of the Board (a "Committee"). If and when the Common Stock (as defined below in Section 4(d)) is registered under the Securities Exchange Act of 1934 (the "Exchange Act"), the Board shall appoint one such Committee of not less than two members, each member of which shall be an "outside director" within the meaning of Section 162(m) of the Code and a "non-employee director" as defined in Rule 16b-3 promulgated under the Exchange Act." All references in the Plan to the "Board" shall mean the Board or a Committee of the Board or the executive officer referred to in Section 3(b) to the extent that the Board's powers or authority under the Plan have been delegated to such Committee or executive officer.

#### 4. STOCK AVAILABLE FOR AWARDS

a. NUMBER OF SHARES. Subject to adjustment under Section 4(c), Awards may be made under the Plan for up to 2,500,000 shares of Common Stock (as defined below in Section 4 (d)). If any Award expires or is terminated, surrendered or canceled without having been fully exercised or is forfeited in whole or in part or results in any Common Stock not being issued, the unused Common Stock (as defined below in Section 4(d)) covered by such Award shall again be available for the grant of Awards under the Plan, subject, however, in the case of Incentive Stock Options (as hereinafter defined), to any limitation required under the Code. Shares issued under the Plan may consist in whole or in part of authorized but unissued shares or treasury shares. All share amounts set forth in this plan reflect the 2,110-for-1 stock split approved by the Board of Directors of the Company on December 31, 1997 (the "1997 Stock Split").

b. PER-PARTICIPANT LIMIT. Subject to adjustment under Section 4(c), for Awards granted after the Common Stock (as defined below in Section 4(d)) is registered under the Exchange Act, the maximum number of shares with respect to which an Award may be granted to any Participant under the Plan shall be 900,000 per calendar year. The per-participant limit described in this Section 4(b) shall be construed and applied consistently with Section 162(m) of the Code.

c. ADJUSTMENT TO COMMON STOCK. In the event, at any time after the 1997 Stock Split, of any stock split, stock dividend, recapitalization, reorganization, merger, consolidation, combination, exchange of shares, liquidation, spin-off or other similar change in capitalization or event, or any distribution to holders of Common Stock (as defined below in Section 4(d)) other than a normal cash dividend, (i) the number and class of securities available under this Plan, (ii) the number and class of security and exercise price per share subject to each outstanding Option, (iii) the repurchase price per security subject to each outstanding Restricted Stock Award and (iv) the terms of each other outstanding stock-based Award shall be appropriately adjusted by the Company (or substituted Awards may be made, if applicable) to the extent the Board shall determine, in good faith, that such an adjustment (or substitution) is necessary and appropriate. If this Section 4(c) applies and Section 8(e) (1) also applies to any event, Section 8(e)(1) shall be applicable to such event and this Section 4(c) shall not be applicable.

d. DEFINITION OF COMMON STOCK. "Common Stock" means (i) prior to the closing of the Company's initial public offering of common stock pursuant to an effective registration statement under the Securities Act of 1933 ("IPO"), the Class B Common Stock, no par value per share, of the Company, and (ii) from and after the closing of the IPO, the Common Stock, no par value per share, of the Company.

#### 5. STOCK OPTIONS

a. GENERAL. The Board may grant options to purchase Common Stock (each, an "Option") and determine the number of shares of Common Stock to be covered by each Option, the exercise price of each Option and the conditions and limitations applicable to the exercise of each Option, including conditions relating to applicable federal or state securities laws, as it considers necessary or advisable. An Option which is not intended to be an Incentive Stock Option (as hereinafter defined) shall be designated a "Nonstatutory Stock Option."

b. INCENTIVE STOCK OPTIONS. An Option that the Board intends to be an "incentive stock option" as defined in Section 422 of the Code (an "Incentive Stock Option") shall only be granted to employees of the Company and shall be subject to and shall be construed consistently with the requirements of Section 422 of the Code. The Company shall have no liability to a Participant, or any other party, if an Option (or any part thereof) which is intended to be an Incentive Stock Option is not an Incentive Stock Option.

c. EXERCISE PRICE. The Board shall establish the exercise price at the time each Option is granted and specify it in the applicable option agreement.

d. DURATION OF OPTIONS. Each Option shall be exercisable at such times and subject to such terms and conditions as the Board may specify in the applicable option agreement. No Option will be granted for a term in excess of 10 years.

e. EXERCISE OF OPTION. Options may be exercised only by delivery to the Company of a written notice of exercise signed by the proper person together with payment in full as specified in Section 5(f) for the number of shares for which the Option is exercised.

f. PAYMENT UPON EXERCISE. Common Stock purchased upon the exercise of an Option granted under the Plan shall be paid for as follows:

i. in cash or by check, payable to the order of the Company;

ii. except as the Board may otherwise provide in an Option Agreement, delivery of an irrevocable and unconditional undertaking by a creditworthy broker to deliver promptly to the Company sufficient funds to pay the exercise price, delivery by the Participant to the Company of a copy of irrevocable and unconditional instructions to a creditworthy broker to deliver promptly to the Company cash or a check sufficient to pay the exercise price, or by delivery of shares of Common Stock owned by the Participant valued at the fair market value as determined by the Board in good faith ("Fair Market Value"), which Common Stock was owned by the Participant at least six months prior to such delivery;

iii. to the extent permitted by the Board and explicitly provided in an Option Agreement (i) by delivery of a promissory note of the Participant to the Company on terms determined by the Board, or (ii) by payment of such other lawful consideration as the Board may determine; or

iv. any combination of the above permitted forms of payment.

## 6. RESTRICTED STOCK

a. GRANTS. The Board may grant Awards entitling recipients to acquire shares of Common Stock, subject to the right of the Company to repurchase all or part of such shares at their issue price or other stated or formula price (or to require forfeiture of such shares if issued at no cost) from the recipient in the event that conditions specified by the Board in the applicable Award are not satisfied prior to the end of the applicable restriction period or periods established by the Board for such Award (each, "Restricted Stock Award").

b. TERMS AND CONDITIONS. The Board shall determine the terms and conditions of any such Restricted Stock Award, including the conditions for repurchase (or forfeiture) and the issue price, if any. Any stock certificates issued in respect of a Restricted Stock Award shall be registered in the name of the Participant and, unless otherwise determined by the Board, deposited by the Participant, together with a stock power endorsed in blank, with the Company (or its designee). At the expiration of the applicable restriction periods, the Company (or such designee) shall deliver the certificates no longer subject to such restrictions to the Participant or if the Participant has died, to the beneficiary designated, in a manner determined by the Board, by a Participant to receive amounts due or exercise rights of the Participant in the event of the Participant's death (the "Designated Beneficiary"). In the absence of an effective designation by a Participant, Designated Beneficiary shall mean the Participant's estate.

## 7. OTHER STOCK-BASED AWARDS

The Board shall have the right to grant other Awards based upon the Common Stock, having such terms and conditions as the Board may determine including the grant of shares based upon certain conditions, the grant of securities convertible into Common Stock and the grant of stock appreciation rights.

8. GENERAL PROVISIONS APPLICABLE TO AWARDS

a. TRANSFERABILITY OF AWARDS. Except as the Board may otherwise determine or provide in an Award, Awards shall not be sold, assigned, transferred, pledged or otherwise encumbered by the person to whom they are granted, either voluntarily or by operation of law, except by will or the laws of descent and distribution, and, during the life of the Participant, shall be exercisable only by the Participant. References to a Participant, to the extent relevant in the context, shall include references to authorized transferees.

b. DOCUMENTATION. Each Award under the Plan shall be evidenced by a written instrument in such form as the Board shall determine. Each Award may contain terms and conditions in addition to those set forth in the Plan.

c. BOARD DISCRETION. Except as otherwise provided by the Plan, each type of Award may be made alone or in addition or in relation to any other type of Award. The terms of each type of Award need not be identical, and the Board need not treat Participants uniformly.

d. TERMINATION OF STATUS. The Board shall determine the effect on an Award of the disability, death, retirement, authorized leave of absence or other change in the employment or other status of a Participant and the extent to which, and the period during which, the Participant, the Participant's legal representative, conservator, guardian or Designated Beneficiary may exercise rights under the Award.

e. ACQUISITION EVENTS

(1) CONSEQUENCES OF ACQUISITION EVENTS. Upon the occurrence of an Acquisition Event (as defined below), or the execution by the Company of any agreement with respect to an Acquisition Event, the Board shall take any one or more of the following actions with respect to then outstanding Awards: (i) provide that outstanding Options shall be assumed, or equivalent Options shall be substituted, by the acquiring or succeeding corporation (or an affiliate thereof), provided that any such Options substituted for Incentive Stock Options shall satisfy, in the determination of the Board, the requirements of Section 424(a) of the Code; (ii) if the acquisition or succeeding corporation refuses or is unable to assume outstanding Options or grant Options in substitution therefor pursuant to clause (i), upon written notice to the Participants, provide that all then unexercised Options will become exercisable in full as of a specified time (the "Acceleration Time") prior to the Acquisition Event and will terminate immediately prior to the consummation of such Acquisition Event, except to the extent exercised by the Participants between the Acceleration Time and the consummation of such Acquisition Event; (iii) in the event of an Acquisition Event under the terms of which holders of Common Stock will receive upon consummation thereof a cash payment for each share of Common Stock surrendered pursuant to such Acquisition Event (the "Acquisition Price"), provide that all outstanding Options shall terminate upon consummation of such Acquisition Event and each Participant shall receive, in exchange therefor, a cash payment equal to the amount (if any) by which (A) the Acquisition Price multiplied by the number of shares of Common Stock subject to such outstanding Options (whether or not then exercisable), exceeds (B) the aggregate exercise price of such Options; (iv) provide that all Restricted Stock Awards then outstanding shall become free of all restrictions prior to the consummation of the Acquisition Event; and (v) provide that any other stock-based Awards outstanding (A) shall become exercisable, realizable or vested in full, or shall be free of all conditions or restrictions, as applicable to each such Award, prior to the consummation of the Acquisition Event, or (B), if applicable, shall be assumed, or equivalent Awards shall be substituted, by the acquiring or succeeding corporation (or an affiliate thereof).

An "Acquisition Event" shall mean: (a) any merger or consolidation which results in the voting securities of the Company outstanding immediately prior thereto representing immediately thereafter (either by remaining outstanding or by being converted into voting securities of the surviving or acquiring entity) less than 50% of the combined voting power of the voting securities of the Company or such surviving or acquiring entity outstanding immediately after such merger or consolidation; (b) any sale of all or substantially all of the assets of the Company; or (c) the complete liquidation of the Company.

(2) ASSUMPTION OF OPTIONS UPON CERTAIN EVENTS. The Board may grant Awards under the Plan in substitution for stock and stock-based awards held by employees of another corporation who become employees of the Company as a result of a merger or consolidation of the employing corporation with the Company or the acquisition by the Company of property or stock of the employing corporation. The substitute Awards shall be granted on such terms and conditions as the Board considers appropriate in the circumstances.

f. WITHHOLDING. Each Participant shall pay to the Company, or make provision satisfactory to the Board for payment of, any taxes required by law to be withheld in connection with Awards to such Participant no later than the date of the event creating the tax liability. The Board may allow Participants to satisfy such tax obligations in whole or in part in shares of Common Stock, including shares retained from the Award creating the tax obligation, valued at their Fair Market Value. The Company may, to the extent permitted by law, deduct any such tax obligations from any payment of any kind otherwise due to a Participant.

g. AMENDMENT OF AWARD. The Board may amend, modify or terminate any outstanding Award, including but not limited to, substituting therefor another Award of the same or a different type, changing the date of exercise or realization, and converting an Incentive Stock Option to a Nonstatutory Stock Option, provided that the Participant's consent to such action shall be required unless the Board determines that the action, taking into account any related action, would not materially and adversely affect the Participant.

h. CONDITIONS ON DELIVERY OF STOCK. The Company will not be obligated to deliver any shares of Common Stock pursuant to the Plan or to remove restrictions from shares previously delivered under the Plan until (i) all conditions of the Award have been met or removed to the satisfaction of the Company, (ii) in the opinion of the Company's counsel, all other legal matters in connection with the issuance and delivery of such shares have been satisfied, including any applicable securities laws and any applicable stock exchange or stock market rules and regulations, and (iii) the Participant has executed and delivered to the Company such representations or agreements as the Company may consider appropriate to satisfy the requirements of any applicable laws, rules or regulations.

i. ACCELERATION. The Board may at any time provide that any Options shall become immediately exercisable in full or in part, that any Restricted Stock Awards shall be free of all restrictions or that any other stock-based Awards may become exercisable in full or in part or free of some or all restrictions or conditions, or otherwise realizable in full or in part, as the case may be.

## 9. MISCELLANEOUS

a. NO RIGHT TO EMPLOYMENT OR OTHER STATUS. No person shall have any claim or right to be granted an Award, and the grant of an Award shall not be construed as giving a Participant the right to continued employment or any other relationship with the Company. The Company expressly reserves the right at any time to dismiss or otherwise terminate its relationship with a Participant free from any liability or claim under the Plan, except as expressly provided in the applicable Award.

b. NO RIGHTS AS STOCKHOLDER. Subject to the provisions of the applicable Award, no Participant or Designated Beneficiary shall have any rights as a stockholder with respect to any shares of Common Stock to be distributed with respect to an Award until becoming the record holder of such shares.

c. EFFECTIVE DATE AND TERM OF PLAN. The Plan shall become effective on the date on which it is adopted by the Board, but no Award granted to a Participant designated as subject to Section 162(m) by the Board shall become exercisable, vested or realizable, as applicable to such Award, unless and until the Plan has been approved by the Company's stockholders. No Awards shall be granted under the Plan after the completion of ten years from the earlier of (i) the date on which the Plan was adopted by the Board or (ii) the date the Plan was approved by the Company's stockholders, but Awards previously granted may extend beyond that date.

d. AMENDMENT OF PLAN. The Board may amend, suspend or terminate the Plan or any portion thereof at any time, provided that no Award granted to a Participant designated as subject to Section 162(m) by the Board after the date of such amendment shall become exercisable, realizable or vested, as applicable to such Award (to the extent that such amendment to the Plan was required to grant such Award to a particular Participant), unless and until such amendment shall have been approved by the Company's stockholders.

e. STOCKHOLDER APPROVAL. For purposes of this Plan, stockholder approval shall mean approval by a vote of the stockholders in accordance with the requirements of Section 162(m) of the Code.

f. GOVERNING LAW. The provisions of the Plan and all Awards made hereunder shall be governed by and interpreted in accordance with the laws of The Commonwealth of Massachusetts, without regard to any applicable conflicts of law rules or provisions.

Adopted by the Board of Directors on  
November 30, 1995

Adopted by the Stockholders on May 17, 1996

Approved as Amended and Restated by the  
Board of Directors on December 31, 1997

Approved as Amended and Restated by the  
Stockholders on January 9, 1998

FIRST AMENDMENT TO

AMENDED AND RESTATED 1999 EMPLOYEE STOCK PURCHASE PLAN

OF

MKS INSTRUMENTS, INC.

Whereas, the above titled plan (the "Plan") was adopted by the Board of Directors (the "Board") of MKS Instruments, Inc. (the "Company") and

Whereas, Section 17 of the Plan provides that the Board may at any time, and from time to time, amend this Plan in any respect,

Now therefore, the Plan is hereby amended, effective for the Plan Period beginning June 1, 2001, as follows:

Section 2(b) is amended by deleting the requirement that a person be employed by the Company or a Designated Subsidiary for "at least six (6) months prior to enrolling in the Plan" and substituting a requirement that a person be employed for "at least three (3) months prior to enrolling in the Plan".

Now therefore, the Plan is hereby further amended, effective for the Plan Period beginning June 1, 2001, as follows:

The first paragraph of Section 9 is hereby deleted in its entirety and the following paragraph is inserted in lieu thereof:

"9. PURCHASE OF SHARES. On the Offering Commencement Date of each Plan Period, the Company will grant to each eligible employee who is then a participant in the Plan an option ("Option") to purchase on the last business day of such Plan Period (the "Exercise Date"), at the Option Price hereinafter provided for, the largest number of shares (fractional or whole) of Common Stock of the Company as does not exceed the number of shares determined by multiplying \$2,083 by the number of full months in the Offering Period and dividing the results by the closing price (as defined below) on the Offering Commencement Date of such Plan Period."

Adopted by the Board of Directors on April 19, 2001.

SECOND AMENDMENT TO

AMENDED AND RESTATED 1999 EMPLOYEE STOCK PURCHASE PLAN

OF

MKS INSTRUMENTS, INC.

Whereas, the above titled plan (the "Plan") was adopted by the Board of Directors (the "Board") of MKS Instruments, Inc. (the "Company") and

Whereas, Section 17 of the Plan provides that the Board may at any time, and from time to time, amend this Plan in any respect,

Now therefore, the Plan is hereby further amended, as follows:

The second sentence of the first paragraph is hereby deleted in its entirety and the following sentence is inserted in lieu thereof:

"Seven hundred thousand (700,000) shares of Common Stock in the aggregate have been approved for this purpose."

Adopted by the Board of Directors on March 29, 2002.

Approved by the Stockholders on May \_\_, 2002.

MKS INSTRUMENTS, INC.

AMENDED AND RESTATED 1999 EMPLOYEE STOCK PURCHASE PLAN

The purpose of this Plan is to provide eligible employees of MKS Instruments, Inc. (the "Company") and certain of its subsidiaries with opportunities to purchase shares of the Company's Common Stock, no par value per share (the "Common Stock"), commencing on June 1, 1999; provided, that at such time the Company's Common Stock shall be listed for trading on the Nasdaq National Market or a national securities exchange. Four hundred fifty thousand (450,000) shares of Common Stock in the aggregate have been approved for this purpose. This Plan is intended to qualify as an "employee stock purchase plan" as defined in Section 423 of the Internal Revenue Code of 1986, as amended (the "Code") and the regulations promulgated thereunder, and shall be interpreted consistent therewith. All share amounts set forth in this Plan reflect the 3-for-2 stock split approved by the Board of Directors of the Company on February 10, 1999 (the "1999 Stock Split").

1. ADMINISTRATION. The Plan will be administered by the Company's Board of Directors (the "Board") or by a Committee appointed by the Board (the "Committee"). The Board or the Committee has authority to make rules and regulations for the administration of the Plan and its interpretation and decisions with regard thereto shall be final and conclusive.

2. ELIGIBILITY. All employees of the Company, including Directors who are employees, and all employees of any subsidiary of the Company (as defined in Section 424(f) of the Code) designated by the Board or the Committee from time to time (a "Designated Subsidiary"), including employees of the Company or any designated Subsidiary who are "highly compensated" within the meaning of Section 414(q) of the Code, are eligible to participate in any one or more of the Offerings (as defined in Section 9) to purchase Common Stock under the Plan provided that:

(a) they are customarily employed by the Company or a Designated Subsidiary for more than 20 hours a week and for more than five months in a calendar year; and

(b) they have been employed by the Company or a Designated Subsidiary for at least six months prior to enrolling in the Plan; and

(c) they are employees of the Company or a Designated Subsidiary on the first day of the applicable Plan Period (as defined below).

No employee may be granted an option hereunder if such employee, immediately after the option is granted, owns 5% or more of the total combined voting power or value of the stock of the Company or any subsidiary. For purposes of the preceding sentence, the attribution rules of Section 424(d) of the Code shall apply in determining the stock ownership of an employee, and all stock which the employee has a contractual right to purchase shall be treated as stock owned by the employee.

3. OFFERINGS. The Company will make one or more offerings ("Offerings") to employees to purchase stock under this Plan. Offerings will begin each June 1 and December 1, or the first business day thereafter (the "Offering Commencement Dates"). Each Offering Commencement Date will begin a six (6) month period (a "Plan Period") during which Payroll deductions will be made and held for the purchase of Common Stock at the end of the Plan Period. The Board or the Committee may, at its discretion, choose a different Plan Period of twelve (12) months or less for subsequent Offerings.

4. PARTICIPATION. An employee eligible on the Offering Commencement Date of any Offering may participate in such Offering by completing and forwarding a payroll deduction authorization form to the employee's appropriate

payroll office at least 30 days prior to the applicable Offering Commencement Date. The form will authorize a regular payroll deduction from the Compensation, as defined below, received by the employee during the Plan Period. Unless an employee files a new form or withdraws from the Plan, his deductions and purchases will continue at the same rate for future Offerings under the Plan as long as the Plan remains in effect. The term "Compensation" means the amount of money reportable on the employee's Federal Income Tax Withholding Statement, including overtime, shift premium, incentive or bonus awards and sales expenses and excluding allowances and reimbursements for expenses such as relocation allowances for travel expenses, income or gains on the exercise of Company stock options or stock appreciation rights, and similar items, whether or not shown on the employee's Federal Income Tax Withholding Statement, but including, in the case of salespersons, sales commissions to the extent determined by the Board or the Committee.

5. DEDUCTIONS. The Company will maintain payroll deduction accounts for all participating employees. With respect to any Offering made under this Plan, an employee may authorize a payroll deduction in any whole percent amount up to a maximum of 10% (or such lower percentage as may be established by the Board or the Committee) of the Compensation he or she receives during the Plan Period or such shorter period during which deductions from payroll are made. The minimum payroll deduction is such percentage of compensation as may be established from time to time by the Board or the Committee.

No employee may be granted an Option (as defined in Section 9) which permits his rights to purchase Common Stock under this Plan and any other employee stock purchase plan (as defined in Section 423(b) of the Code) of the Company and its subsidiaries, to accrue at a rate which exceeds \$25,000 of the fair market value of such Common Stock (determined at the Offering Commencement Date of the Plan Period) for each calendar year in which the Option is outstanding at any time.

6. DEDUCTION CHANGES. An employee may decrease, subject to section 5 hereof or discontinue his payroll deduction once during any Plan Period, by filing a new payroll deduction authorization form. However, an employee may not elect to increase his payroll deduction during a Plan Period. If an employee elects to discontinue his payroll deductions during a Plan Period, but does not elect to withdraw his funds pursuant to Section 8 hereof, funds deducted prior to his election to discontinue will be applied to the purchase of Common Stock on the Exercise Date (as defined below).

7 INTEREST. Interest will not be paid on employee accounts.

8. WITHDRAWAL OF FUNDS. An employee may at any time prior to the close of business on the last business day in a Plan Period and for any reason permanently draw out the balance accumulated in the employee's account and thereby withdraw from participation in an Offering. Partial withdrawals are not permitted. The employee may not begin participation again during the remainder of the Plan Period. The employee may participate in any subsequent Offering in accordance with terms and conditions established by the Board or the Committee.

9. PURCHASE OF SHARES. On the Offering Commencement Date of each Plan Period, the Company will grant to each eligible employee who is then a participant in the Plan an option ("Option") to purchase on the last business day of such Plan Period (the "Exercise Date"), at the Option Price hereinafter provided for, the largest number of whole shares of Common Stock of the Company as does not exceed the number of shares determined by multiplying \$2,083 by the number of full months in the Offering Period and dividing the results by the closing price (as defined below) on the Offering Commencement Date of such Plan Period.

The purchase price for each share purchased will be 85% of the closing price of the Common Stock on (i) the first business day of such Plan Period or (ii) the Exercise Date, whichever closing price shall be less. Such closing price shall be (a) the closing price on any national securities exchange on which the Common Stock is listed, (b) the closing price of the Common Stock on the Nasdaq National Market or (c) the average of the closing bid and asked prices in the over-the-counter-market, whichever is applicable, as published in The Wall Street Journal. If no sales of Common Stock were made on such a day, the price of the Common Stock for purposes of clauses (a) and (b) above shall be the reported price for the next preceding day on which sales were made.

Each employee who continues to be a participant in the Plan on the Exercise Date shall be deemed to have exercised his Option at the Option Price on such date and shall be deemed to have purchased from the Company the number of full shares of Common Stock reserved for the purpose of the Plan that his accumulated payroll deductions on such date will pay for, but not in excess of the maximum number determined in the manner set forth above.

Any balance remaining in an employee's payroll deduction account at the end of a Plan Period will be automatically refunded to the employee, except that any balance which is less than the purchase price of one share of Common Stock will be carried forward into the employee's payroll deduction account for the following Offering, unless the employee elects not to participate in the following Offering under the Plan, in which case the balance in the employee's account shall be refunded.

10. ISSUANCE OF CERTIFICATES. Certificates representing shares of Common Stock purchased under the Plan may be issued only in the name of the employee, in the name of the employee and another person of legal age as joint tenants with rights of survivorship, or (in the Company's sole discretion) in the name of a brokerage firm, bank or other nominee holder designated by the employee. The Company may, in its sole discretion and in compliance with applicable laws, authorize the use of book entry registration of shares in lieu of issuing stock certificates.

11. RIGHTS ON RETIREMENT, DEATH OR TERMINATION OF EMPLOYMENT. In the event of a participating employee's termination of employment prior to the last business day of a Plan Period, no payroll deduction shall be taken from any pay due and owing to an employee and the balance in the employee's account shall be paid to the employee or, in the event of the employee's death, (a) to a beneficiary previously designated in a revocable notice signed by the employee (with any spousal consent required under state law) or (b) in the absence such a designated beneficiary, to the executor or administrator of the employee's estate or (c) if no such executor or administrator has been appointed to the knowledge of the Company, to such other person(s) as the Company may, in its discretion, designate. If, prior to the last business day of the Plan Period, the Designated Subsidiary by which an employee is employed shall cease to be a subsidiary of the Company, or if the employee is transferred to a subsidiary of the Company that is not a Designated Subsidiary, the employee shall be deemed to have terminated employment for the purposes of this Plan.

12. OPTIONEES NOT STOCKHOLDERS. No employee shall have any rights as a stockholder with respect to any shares of Common Stock to be distributed with respect to an Option until becoming the record holder of such shares. Notwithstanding the foregoing, in the event the Company effects a split of the Common Stock by means of a stock

dividend (and the exercise price of and the number of shares subject to such Option are adjusted as of the date of the distribution of the dividend rather than as of the record date for such dividend), then an optionee who is deemed to have exercised an Option between the record date and the distribution date for such stock dividend shall be entitled to receive, on the distribution date, the stock dividend with respect to the shares of Common Stock.

13. RIGHTS NOT TRANSFERABLE. Rights under this Plan are not transferable by a participating employee other than by will or the laws of descent and distribution, and are exercisable during the employee's lifetime only by the employee.

14. APPLICATION OF FUNDS. All funds received or held by the Company under this Plan may be combined with other corporate funds and may be used for any corporate purpose.

15. ADJUSTMENT IN CASE OF CHANGES AFFECTING COMMON STOCK. In the event, at any time after the 1999 Stock Split, of a subdivision of outstanding shares of Common Stock, or the payment of a dividend in Common Stock, the number of shares approved for this Plan, and the share limitation set forth in Section 9, shall be increased proportionately, and such other adjustment shall be made as may be deemed equitable by the Board or the Committee. In the event of any other change affecting the Common Stock, such adjustment shall be made as may be deemed equitable by the Board or the Committee to give proper effect to such event.

16. MERGER. If the Company shall at any time merge or consolidate with another corporation and the holders of the capital stock of the Company immediately prior to such merger or consolidation continue to hold at least 80% by voting power of the capital stock of the surviving corporation ("Continuity of Control"), the holder of each Option then outstanding will thereafter be entitled to receive at the next Exercise Date upon the exercise of such Option for each share as to which such Option shall be exercised the securities or property which a holder of one share of the Common Stock was entitled to upon and at the time of such merger or consolidation, and the Board or the Committee shall take such steps in connection with such merger or consolidation as the Board or the Committee shall deem necessary to assure that the provisions of Section 15 shall thereafter be applicable, as nearly as reasonably may be, in relation to the said securities or property as to which such holder of such Option might thereafter be entitled to receive thereunder.

In the event of a merger or consolidation of the Company with or into another corporation which does not involve Continuity of Control, or of a sale of all or substantially all of the assets of the Company while unexercised Options remain outstanding under the Plan, all outstanding Options shall be cancelled by the Board or the Committee as of the effective date of any such transaction, provided that notice of such cancellation shall be given to each holder of an Option, and each holder of an Option shall have the right to exercise such Option in full based on payroll deductions then credited to his account as of a date determined by the Board or the Committee, which date shall not be less than ten (10) days preceding the effective date of such transaction.

17. AMENDMENT OF THE PLAN. The Board may at any time, and from time to time, amend this Plan in any respect, except that (a) if the approval of any such amendment by the shareholders of the Company is required by Section 423 of the Code, such amendment shall not be effected without such approval, and (b) in no event may any amendment be made which would cause the Plan to fail to comply with Section 423 of the Code.

18. SUFFICIENT SHARES. In the event that the total number of shares of Common Stock specified in elections to be purchased under any Offering plus the number of shares purchased under previous Offerings under this Plan exceeds the maximum number of shares issuable under this Plan, the Board or the Committee will allot the shares then available on a pro rata basis.

19. TERMINATION OF THE PLAN. This Plan may be terminated at any time by the Board. Upon termination of this Plan all amounts in the accounts of participating employees shall be promptly refunded.

20. GOVERNMENTAL REGULATIONS. The Company's obligation to sell and deliver Common Stock under this Plan is subject to listing on a national stock exchange or quotation on the Nasdaq National Market and the approval of all governmental authorities required in connection with the authorization, issuance or sale of such stock.

21. GOVERNING LAW. The Plan shall be governed by Massachusetts law except to the extent that such law is preempted by federal law.

22. ISSUANCE OF SHARES. Shares may be issued upon exercise of an Option from authorized but unissued Common Stock, from shares held in the treasury of the Company, or from any other proper source.

23. NOTIFICATION UPON SALE OF SHARES. Each employee agrees, by entering the Plan, to promptly give the Company notice of any disposition of shares purchased under the Plan where such disposition occurs within two years after the date of grant of the Option pursuant to which such shares were purchased or one year after the date of exercise of the Option.

24. EFFECTIVE DATE AND APPROVAL OF STOCKHOLDERS. The Plan shall take effect on June 1, 1999 if at such time the Common Stock is listed for trading on the Nasdaq National Market or a national securities exchange, subject to approval by the stockholders of the Company as required by Section 423 of the Code, which approval must occur within twelve months of the adoption of the Plan by the Board.

Adopted by the Board of Directors on  
February 10, 1999

Approval by the Stockholders  
on February 17, 1999

Amended and Restated by the Board of  
Directors on April 22, 1999

MKS INSTRUMENTS, INC.  
INTERNATIONAL EMPLOYEE STOCK PURCHASE PLAN  
FIRST 2001 AMENDMENT

Whereas, the above titled plan (the "Plan") was adopted by the Board of Directors (the "Board") of MKS Instruments, Inc. (the "Company") and

Whereas, Section 17 of the Plan provides that the Board may at any time, and from time to time, amend this Plan in any respect,

Now therefore, the Plan is hereby amended, effective for the Plan Period beginning June 1, 2001, as follows:

Section 2(a) is amended by deleting the requirement that a person be employed by the Subsidiary for "at least six (6) months prior to enrolling in the Plan" and substituting a requirement that a person be employed for "at least three (3) months prior to enrolling in the Plan."

Now therefore, the Plan is hereby further amended, effective for the Plan Period beginning June 1, 2001, as follows:

The first paragraph of Section 9 is hereby deleted in its entirety and the following paragraph is inserted in lieu thereof:

"9. PURCHASE OF SHARES. On the Offering Commencement Date of each Plan Period, the Company will grant to each eligible employee who is then a participant in the Plan an option ("Option") to purchase on the last business day of such Plan Period (the "Exercise Date"), at the Option Price hereinafter provided for, the largest number of shares (fractional or whole) of Common Stock of the Company as does not exceed the number of shares determined by multiplying \$2,083 by the number of full months in the Offering Period and dividing the results by the closing price (as defined below) on the Offering Commencement Date of such Plan Period."

Adopted by the Board of Directors on April 19, 2001.

MKS INSTRUMENTS, INC.  
INTERNATIONAL EMPLOYEE STOCK PURCHASE PLAN  
SECOND 2001 AMENDMENT

Whereas, the above titled plan (the "Plan") was adopted by the Board of Directors (the "Board") of MKS Instruments, Inc. (the "Company") and

Whereas, Section 17 of the Plan provides that the Board may at any time, and from time to time, amend this Plan in any respect,

Now therefore, the Plan is hereby amended to add the following new Section:

"25. ADDITIONAL CONDITIONS. The Committee or the Board may establish additional conditions or provisions for the participation of eligible employees in the Plan in order to comply with the tax, securities and other laws and regulation of the countries in which such employees reside, even if such conditions or provisions increase the benefits accruing to such employees under the Plan."

Adopted by the Board of Directors on July 31, 2001.

MKS INSTRUMENTS, INC.  
INTERNATIONAL EMPLOYEE STOCK PURCHASE PLAN  
FIRST 2002 AMENDMENT

Whereas, the above titled plan (the "Plan") was adopted by the Board of Directors (the "Board") of MKS Instruments, Inc. (the "Company") and

Whereas, Section 17 of the Plan provides that the Board may at any time, and from time to time, amend this Plan in any respect,

Now therefore, the Plan is hereby further amended, as follows:

The last sentence of the first paragraph is hereby deleted in its entirety and the following sentence is inserted in lieu thereof:

"Seventy-five thousand (75,000) shares of Common Stock in the aggregate have been approved for this purpose."

Adopted by the Board of Directors on March 29, 2002.  
Approved by the Stockholders on May \_\_, 2002.

MKS INSTRUMENTS, INC.

INTERNATIONAL EMPLOYEE STOCK PURCHASE PLAN

The purpose of this Plan is to provide eligible employees of certain non-U.S. subsidiaries of MKS Instruments, Inc. (the "Company") with opportunities to purchase shares of the Company's common stock (the "Common Stock"), commencing on March 1, 2000. Fifty thousand (50,000) shares of Common Stock in the aggregate have been approved for this purpose.

1. ADMINISTRATION. The Plan will be administered by the Company's Board of Directors (the "Board") or by a Committee appointed by the Board (the "Committee"). The Board or the Committee has authority to make rules and regulations for the administration of the Plan and its interpretation and decisions with regard thereto shall be final and conclusive.

2. ELIGIBILITY. All employees of any non-U.S. subsidiary of the Company designated by the Board or the Committee from time to time (a "Subsidiary"), excluding Officers and Directors of the Company who are employees of a Subsidiary, are eligible to participate in any one or more of the offerings of Options (as defined in Section 9) to purchase Common Stock under the Plan provided that:

a. they have been employed by the Subsidiary for at least six (6) months prior to enrolling in the Plan;

b. they are employees of the Subsidiary on the first day of the applicable Plan Period (as defined below);

c. to the extent local law permits such a requirement, they are customarily employed by a Subsidiary for more than twenty (20) hours a week and for more than five (5) months in a calendar year; and

d. they meet any other requirements imposed from time to time by the Board or the Committee on employees of one or more subsidiaries.

No employee may be granted an option hereunder if such employee, immediately after the option is granted, owns 5% or more of the total combined voting power or value of the stock of the Company or any subsidiary. For purposes of the preceding sentence, the attribution rules of Section 424(d) of the U.S. Internal Revenue Code of 1986, as amended (the "Code") shall apply in determining the stock ownership of an employee, and all stock which the employee has a contractual right to purchase shall be treated as stock owned by the employee.

3. OFFERINGS. The Company will make one or more offerings ("Offerings") to employees to purchase stock under this Plan. The first Offering will begin on March 1, 2000 or the first business day thereafter (the "Offering Commencement Dates") and end on May 31, 2000. Thereafter, each June 1 and December 1 or the first business day thereafter will be an Offering Commencement Date. Each Offering Commencement Date after March 1, 2000 will begin a six (6) month period (a "Plan Period") during which payroll deductions will be made and held for the purchase of Common Stock at the end of the Plan Period. The Board or the Committee may, at its discretion, choose a different Plan Period of twelve (12) months or less for subsequent Offerings.

4. PARTICIPATION.

a. ENROLLMENT. An employee eligible on the Offering Commencement Date of any Offering may participate in such Offering by enrolling, in such manner and at such time approved, from time to time, by the Board or the Committee, prior to the applicable Offering Commencement Date in said Offering. The enrollment will authorize a regular payroll deduction from the Compensation received by the employee during the Plan Period. Unless an employee changes his enrollment in a manner prescribed by the Committee from time to time or withdraws from the Plan, his deductions and purchases will continue at the same rate for future Offerings under the Plan as long as the Plan remains in effect. The term "Compensation" shall be defined by the Board or the Committee from time to time, but until modified shall mean regular base salary, including overtime, shift premium, incentive or bonus awards and sales commissions and excluding allowances and reimbursements for expenses such as relocation allowances for

travel expenses, income or gains on the exercise of Company stock options or stock appreciation rights, and similar items whether or not taxable.

b. TAX WITHHOLDING AUTHORIZED. The enrollment of each employee shall constitute such participating employee's authorization of his or her employer to deduct from such employee's compensation in the relevant month or months (or subsequent months, if appropriate) any amount necessary for the payment or reimbursement of any tax liability payable by such employee with respect to the grant or exercise of the options hereunder, or the sale of any stock acquired through the exercise of such option.

5. DEDUCTIONS. The Company will maintain payroll deduction accounts for all participating employees. With respect to any Offering made under this Plan, an employee may authorize a payroll deduction in any whole percent amount between one and ten percent (1-10%) of the Compensation he or she receives during the Plan Period or such shorter period during which deductions from payroll are made (or such other percentages as may be established by the Board or the Committee). Any change in Compensation during the Plan Period will result in an automatic corresponding change in the amount withheld. The payroll deductions shall be made in the applicable local currency and will be converted into United States currency at the prevailing rate of exchange in effect on such date as the Board or Committee shall determine. All amounts deducted may be transferred to an account of the Company or the Subsidiary outside the country in which such employee is employed.

No employee may be granted an Option (as defined in Section 9) which permits his rights to purchase Common Stock under this Plan and any other employee stock purchase plan (as defined by the Committee or Board) of the Company and its subsidiaries, to accrue at a rate which exceeds \$25,000 of the fair market value of such Common Stock (determined at the Offering Commencement Date of the Plan Period) for each calendar year in which the Option is outstanding at any time.

6. DEDUCTION CHANGES. An employee may decrease, subject to Section 5 hereof, or discontinue his payroll deduction once during any Plan Period, up to such date prior to the close of business on the last business day, and in such manner as is permitted by the Board or Committee. However, an employee may not elect to increase his payroll deduction during a Plan Period. If an employee elects to discontinue his payroll deductions during a Plan Period but does not elect to withdraw his funds pursuant to Section 8 hereof, amounts previously withheld will be applied to the purchase of Common Stock on the Exercise Date (as defined below).

7. INTEREST. Interest will not be paid on any employee accounts.

8. WITHDRAWAL OF FUNDS. An employee may at any time up to a deadline established by the Committee or the Board, prior to the close of business on the last business day in a Plan Period, and for any reason, permanently draw out the balance accumulated in the employee's account, which will be paid in the local currency or, in Euros, at the discretion of the Board or the Committee if such employee is employed in a country which maintains a fixed exchange rate between its local currency and the Euro ("Repayment in Euros"), and thereby withdraw from participation in an Offering. Partial withdrawals are not permitted. The employee may not begin participation again during the remainder of the Plan Period. The employee may participate in any subsequent Offering in accordance with terms and conditions established by the Board or the Committee.

9. PURCHASE OF SHARES. On the Offering Commencement Date of each Plan Period, the Company will grant to each eligible employee who is then a participant in the Plan an option ("Option") to purchase on the last business day of such Plan Period (the "Exercise Date"), at the Option Price hereinafter provided for, the largest number of shares (including fractional shares) of Common Stock of the Company as does not exceed the number of shares determined by multiplying \$2,083 by the number of full months in the Offering Period and dividing the results by the closing price (as defined below) on the Offering Commencement Date of such Plan Period.

The purchase price for each share purchased will be 85% of the Fair Market Value of the Common Stock on (i) the first business day of such Plan Period or (ii) the Exercise Date, whichever Fair Market Value shall be less. Such Fair Market Value shall be (a) the closing price on any national securities exchange on which the Common Stock is listed, (b) the closing price of the Common Stock on the Nasdaq National Market or (c) the average of the closing bid price and asked price in the over-the-counter-market, whichever is applicable, as published in THE WALL STREET

JOURNAL. If no sales of Common Stock were made on such a day, the price of the Common Stock for purposes of clauses (a) and (b) above shall be based on the reported price for the next preceding day on which sales were made.

Each employee who continues to be a participant in the Plan on the Exercise Date shall be deemed to have exercised his Option at the Option Price on such date and shall be deemed to have purchased from the Company the number of shares of Common Stock (including fractional shares) reserved for the purpose of the Plan that his accumulated payroll deductions on such date will pay for, in United State currency as of that date, but not in excess of the maximum number determined in the manner set forth above. The Board or the Committee may, in its discretion, limit the purchase to only whole shares and not fractional shares.

Any balance remaining in an employee's payroll deduction account at the end of a Plan Period will be automatically refunded to the employee in the local currency or at the discretion of the Committee or the Board there may be Repayment in Euros, except that any balance which is less than the purchase price of one share of Common Stock will be carried forward into the employee's payroll deduction account for the following Offering, unless the employee elects not to participate in the following Offering under the Plan, in which case the balance shall be refunded.

10. ISSUANCE OF CERTIFICATES. Certificates representing shares of Common Stock purchased under the Plan may be issued only in the name of the employee, in the name of the employee and another person of legal age as joint tenants with rights of survivorship, or (in the Company's sole discretion) in the name of a brokerage firm, bank or other nominee holder designated by the employee. The Company may, in its sole discretion and in compliance with applicable laws, authorize the use of book entry registration of shares in lieu of issuing stock certificates.

11. RIGHTS ON RETIREMENT DEATH OR TERMINATION OF EMPLOYMENT. In the event of a participating employee's termination of employment prior to the last business day of a Plan Period, no payroll deduction shall be taken from any pay due and owing to an employee and the balance in the employee's account shall be paid to the employee or, in the event of the employee's death, and subject to the terms of applicable law, (a) to a beneficiary previously designated in a revocable notice signed by the employee (with any spousal consent required under local law) or (b) in the absence of such a designated beneficiary, to the personal representative of the employee's estate or (c) if no such personal representative has been appointed to the knowledge of the Company, to such other person(s) as the Company may, in its discretion, designate. If, prior to the last business day of the Plan Period, the designated Subsidiary by which an employee is employed shall cease to be a subsidiary of the Company, or if the employee is transferred to a subsidiary of the Company that is not a Subsidiary under the Plan, the employee shall be deemed to have terminated employment for the purposes of this Plan.

12. 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 of Common Stock covered by an Option under this Plan until such shares have been purchased by and issued to him or to an account for his benefit. Notwithstanding the foregoing, in the event the Company effects a split of the Common Stock by means of a stock dividend (and the exercise price of and the number of shares subject to such Option are adjusted as of the date of the distribution of the dividend rather than as of the record date for such dividend), then an optionee who is deemed to have exercised an Option between the record date and the distribution date for such stock dividend shall be entitled to receive, on the distribution date, the stock dividend with respect to the shares of Common Stock.

13. RIGHTS NOT TRANSFERABLE. Rights under this Plan are not transferable by a participating employee other than by will or the laws of descent and distribution, and are exercisable during the employee's lifetime only by the employee.

14. APPLICATION OF FUNDS. To the extent consistent with applicable law, all funds received or held by the Company or any Subsidiary under this Plan may be combined with other corporate funds and may be used for any corporate purpose and transferred outside the country in which they are deducted from payroll.

15. ADJUSTMENT IN CASE OF CHANGES AFFECTING COMMON STOCK. In the event of a subdivision of outstanding shares of Common Stock, or the payment of a dividend in Common Stock, the number of shares approved for this Plan, and the share limitation set forth in Section 9, shall be increased proportionately, and such other adjustment shall be made as may be deemed equitable by the Board or the Committee. In the event of any other change affecting the

Common Stock, such adjustment shall be made as may be deemed equitable by the Board or the Committee to give proper effect to such event.

16. MERGER. If the Company shall at any time merge or consolidate with another corporation and the holders of the capital stock of the Company immediately prior to such merger or consolidation continue to hold at least 80% by voting power of the capital stock of the surviving corporation ("Continuity of Control"), the holder of each Option then outstanding will thereafter be entitled to receive at the next Exercise Date upon the exercise of such Option for each share as to which such Option shall be exercised the securities or property which a holder of one share of the Common Stock was entitled to upon and at the time of such merger or consolidation, and the Board or the Committee shall take such steps in connection with such merger or consolidation as the Board or the Committee shall deem necessary to assure that the provisions of Section 15 shall thereafter be applicable, as nearly as reasonably may be, in relation to the said securities or property as to which such holder of such Option might thereafter be entitled to receive thereunder.

In the event of a merger or consolidation of the Company with or into another corporation which does not involve Continuity of Control, or of a sale of all or substantially all of the assets of the Company while unexercised Options remain outstanding under the Plan, all outstanding Options shall be cancelled by the Board or the Committee as of the effective date of any such transaction, provided that notice of such cancellation shall be given to each holder of an Option, and each holder of an Option shall have the right to exercise such Option in full based on payroll deductions then credited to his account as of a date determined by the Board or the Committee, which date shall not be less than ten (10) days preceding the effective date of such transaction.

17. AMENDMENT OF THE PLAN. The Board may at any time, and from time to time, amend this Plan in any respect.

18. INSUFFICIENT SHARES. In the event that the total number of shares of Common Stock specified in elections to be purchased under any Offering plus the number of shares purchased under previous Offerings under this Plan exceeds the maximum number of shares issuable under this Plan, the Board or the Committee will allot the shares then available on a pro rata basis.

19. TERMINATION OF THE PLAN. This Plan may be terminated at any time by the Board. Upon termination of this Plan all amounts in the accounts of participating employees shall be promptly refunded in local currency or at the discretion of the Committee or the Board there may be Repayment in Euros.

20. GOVERNMENTAL REGULATIONS. The Company's obligation to sell and deliver Common Stock under this Plan is subject to listing on a U.S. national stock exchange or quotation on the Nasdaq National Market and the approval of all applicable governmental authorities required in connection with the authorization, issuance or sale of such stock.

21. GOVERNING LAW. The Plan shall be governed by Massachusetts law except to the extent that such law is preempted by U.S. federal law or other applicable law.

22. ISSUANCE OF SHARES. Shares may be issued upon exercise of an Option from authorized but unissued Common Stock, from shares held in the treasury of the Company, or from any other proper source.

23. NOTIFICATION UPON SALE OF SHARES. Each employee agrees, by entering the Plan, to promptly give the Company notice of any disposition of shares purchased under the Plan.

24. EFFECTIVE DATE. The Plan shall take effect on March 1, 2000.

Approved by the Board of Directors on February 18, 2000

DETACH HERE

THE PROXY IS SOLICITED ON BEHALF OF THE BOARD OF DIRECTORS

MKS INSTRUMENTS, INC.

2002 ANNUAL MEETING OF STOCKHOLDERS

MAY 16, 2002

The undersigned stockholder of MKS Instruments, Inc., a Massachusetts corporation (the "Company"), hereby acknowledges receipt of the Notice of 2002 Annual Meeting of Stockholders and Proxy Statement, each dated April [ ], 2002, and hereby appoints Richard S. Chute and Ronald C. Weigner, and each of them acting singly, proxies and attorneys-in-fact, with full power to each of substitution, on behalf and in the name of the undersigned, to represent the undersigned at the 2002 Annual Meeting of Stockholders of the Company to be held on May 16, 2002, at 10:00 a.m. at the Andover Country Club, 60 Canterbury Street, Andover, Massachusetts 01810, and at any adjournment(s) thereof, and to vote all shares of Common Stock which the undersigned would be entitled to vote if then and there personally present, on the matters set forth on the reverse side, and, in their discretion, upon any other matters which may properly come before the meeting.

SEE REVERSE  
SIDE

CONTINUED AND TO BE SIGNED  
ON REVERSE SIDE

SEE REVERSE  
SIDE



6. To ratify the appointment of PricewaterhouseCoopers LLP as independent accountants for the Company for the fiscal year ending December 31, 2002.

FOR  
[ ]

AGAINST  
[ ]

ABSTAIN  
[ ]

MARK HERE IF YOU PLAN TO ATTEND [ ]

MARK HERE FOR ADDRESS CHANGE AND NOTE AT LEFT [ ]

TO ENSURE YOUR REPRESENTATION AT THE ANNUAL MEETING, PLEASE MARK, SIGN AND DATE THIS PROXY AND RETURN IT AS PROMPTLY AS POSSIBLE.

(This proxy should be marked, dated and signed by the stockholder(s) exactly as his or her name appears hereon, and returned promptly in the enclosed envelope. When shares are held by joint tenants, both should sign. When signing as attorney, executor, administrator, trustee or guardian, please give full title as such. If a corporation, please sign in full corporate name by president or other authorized officer. If a partnership, please sign in partnership name by authorized person, who should state his or her title.)

SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_

SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_