

Margin Account Agreement *Customer Copy*

Margin Agreement

This is the agreement for your brokerage account. It describes the features and policies associated with the margin account. Review this document and retain it for future reference. Do NOT return it with your application.

Who's Who in This Agreement

In this document, "us" "we," and "our," refer to your Broker/Dealer. "NFS" is National Financial Services LLC, a NYSE member, whom we have engaged to provide custody and clearing services for us. The terms "account owner," "you," "I," and "your" refer to the owner(s) indicated on the margin account application. For joint accounts, these terms refer to all owners, collectively and individually. For accounts owned by entities, such as trust or business, accounts, these terms refer both to the entity and all authorized individuals.

To: My Broker/Dealer and National Financial Services LLC ("NFS" or "you") Introducing Broker/Dealer

1. I agree as follows with respect to all of my brokerage accounts, in which I have an interest alone or with others, which I have opened or will open in the future, with you through my Broker/Dealer for the purchase and sale of securities. I hereby acknowledge that I have read, understand and agree to the terms set forth below. Upon acceptance of my application(s), I understand my Broker/Dealer will maintain an account for me at NFS, and my Broker/Dealer may buy or sell securities or other products according to my instructions. All decisions relating to my investment or trading activity shall be made by me, my Broker/Dealer or my duly authorized representative. Any information provided in this brokerage account application and agreement will be subject to verification. I authorize NFS and my Broker/Dealer to exchange credit information about me. My Broker/Dealer and you also may tape record conversations with me in order to verify data concerning any transactions I request, and I consent to such recording. I also understand that my brokerage account(s) is carried by NFS, and that all terms of this Agreement also apply between me and NFS. I have carefully examined my financial resources, investment objectives, tolerance for risk along with the terms of the margin agreement and have determined that margin financing is appropriate for me. I understand that investing on margin involves the extension of credit to me and that my financial exposure could exceed the value of securities in my account. I agree to notify my Broker/Dealer in writing of any material changes in my financial circumstances or investment objectives. NFS may use certain securities in your account in connection with short sales and may receive compensation in connection therewith. For the purposes of this Agreement, assets in any FDIC-insured Bank Deposit Sweep Program are deemed to be part of your brokerage account and are treated as cash deposits.
2. I am of legal age in the state in which I reside and represent that, except as otherwise disclosed to you in writing, I am not an employee of any Exchange or of a Member Firm of any Exchange or the Financial Industry Regulatory Authority (FINRA) and that I will promptly notify you if I become so employed. I am not employed as a director, 10% shareholder, or policy-making executive officer of a publicly traded company and I will promptly notify you if I become so employed.
3. All transactions are subject to the constitution, rules, regulations, customs, and usages of the exchange, market or clearinghouse where executed, as well as to any applicable federal or state laws, rules and regulations.
4. Any credit balances, including, but not limited to, any funds held at any Bank pursuant to any FDIC-insured Bank Deposit Sweep Program, as described in the Customer Brokerage Agreement, or any amendment thereto, securities, assets or related contracts, and all other property in which I may have an interest held by you or carried for my brokerage accounts shall be subject to a general lien for the discharge of my obligations to you (including unmaturing and contingent obligations) and you may sell, transfer, convert, withdraw, or assign such assets or property to satisfy a margin deficiency or other obligation whether or not you have made advances with respect to such property. Without notice to me, such property may be carried in your general loans, and all your securities may be pledged, repledged, hypothecated or rehypothecated, separately or in common with other securities or any other property for the sum due to you or for a greater sum, and without retaining in your possession and control for delivery a like amount of similar securities or other property. At any time in your discretion, you may, without notice to me, apply and/or transfer any securities, related contracts, cash or any other property, interchangeably between my brokerage accounts, including, but not limited to, any funds held at any Bank pursuant to any FDIC-insured Bank Deposit Sweep Program, as described in the Customer Brokerage Agreement, and any amendment thereto, whether individual or joint, from any of my brokerage accounts to any brokerage account guaranteed by me. You are specifically authorized to transfer to my cash account, on the settlement day following a purchase made in that brokerage account, excess funds available in any of my brokerage accounts, including, but not limited to, any free balances in any margin account, sufficient to make full payment of this cash purchase. I agree that any debit occurring in any of my brokerage accounts may be transferred by you at your option to my margin account. In return for your extension or maintenance of credit in connection with my account, I acknowledge that the securities in my margin account, together with all attendant rights of ownership, may be lent to you or lent by you to others. In connection with such loans and in connection with securities loans made to me to facilitate short sales, you may receive and retain certain benefits to which I will not be entitled. Such loans may limit, in whole or in part, my ability to exercise voting rights and/or my entitlement to interest, dividends, and/or other distributions with respect to the securities lent. I understand that, while a security in my account is lent to you or to others, the borrower or the party to whom the borrower has sold the security may be entitled to interest, dividends, and/or other distributions and I may be allocated and receive substitute payments in lieu of such interest, dividends, and/or other distributions. I understand that substitute payments may not be afforded the same tax treatment as actual interest, dividends, and/or other distributions, and that I may incur additional tax liability for substitute payments that I receive. NFS may allocate substitute payments in any manner permitted by law, rule, or regulation, including, but not limited to, by means of a lottery allocation method. I acknowledge that I am not entitled to any compensation in connection with securities lent from my account or for additional taxes I may be required to pay as a result of any tax treatment differential between substitute payments and actual interest, dividends, and/or other distributions. With the risk of loss being unlimited with short sales, I am aware of any and all risks associated with short sales. I also understand that my Broker/Dealer reserves the right to pass along any fees associated with short sale transactions and interest related to borrowing of securities to cover short sales to me.
5. I will maintain such margins as you require in your discretion at any time and will pay on demand any debit balance owing on any of my brokerage accounts. If any brokerage account is liquidated in whole or in part by you or me to satisfy the debt, I will be liable to you for any deficiency and shall make payment of such deficiency on demand. Whenever in your discretion you deem it desirable for your protection (and without the necessity of a margin call), including but not limited to extreme market volatility or trading volumes, an instance where a petition in bankruptcy or for the appointment of a receiver is filed by or against me, or an attachment is levied against my brokerage account, or in the event of notice of my death or incapacity, or in compliance with the orders of the Exchange, you may, without prior demand, tender, and without any notice of the time or place of sale, all of which are expressly waived, sell any or all of securities or related contracts that may be in your possession, at your selection, or which you may be carrying for me, or buy any securities, or related contracts relating thereto of which my brokerage account or brokerage accounts may be short, in order to close out in whole or in part any commitment in my behalf. You may also place stop orders with respect of such securities and such sale or purchase be made at your discretion on any exchange including before or after hours markets or other markets where such business is then transacted, or at public auction or private sale, with or without advertising, and neither any demands, calls, tenders or notices which you may make or give in any one or more instances nor any prior course of conduct or dealings between us shall invalidate the aforesaid waivers on my part. You shall have the right to purchase for your own account any or all of the aforesaid property at such sale, discharged of any right of redemption which

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is hereby waived.

6. In the absence of a specific demand, all transactions in any of my brokerage accounts are to be paid for, securities delivered or required margin deposited, no later than 2 p.m. Eastern Time on the settlement date, and I agree to deliver my securities I have in my possession in sufficient time to be received by my Broker/Dealer one day before settlement date. My Broker/Dealer and NFS reserve the right to cancel or liquidate at my risk any transaction not timely settled. Margin calls are due on the date indicated regardless of the settlement date of the transaction. For most stocks and bonds, the settlement date is the second business day following the trade date. Settlement dates for U.S. government issues vary. Options settle on the next business day. Interest will be charged on any debit balance which remains in my brokerage account past the settlement date as explained in the Disclosure of Credit Terms on Transactions section of this Agreement.
7. My Broker/Dealer or NFS transmits customer orders for execution to various exchanges or market centers based on a number of factors. These include: size of order, trading characteristics of the security, favorable execution prices (including the opportunity for price improvement), access to reliable market data, availability of efficient automated transaction processing and reduced execution costs through price concessions for the market centers. Certain of the market centers may execute orders at prices superior to the publicly quoted market in accordance with their rules or practices. While a customer may specify that an order be directed to a particular market center for execution,* the order-routing policies, taking into consideration all of the factors listed above, are designed to result in favorable transaction processing for customers. My Broker/Dealer and NFS receive remuneration, compensation or other consideration for directing customer orders for equity securities to particular broker/dealers or market centers for execution. Such consideration, if any, takes the form of financial credits, monetary payments, or reciprocal business.
***Note:** Orders placed through any telephone, electronic or on-line trading systems cannot specify a particular market center for execution.
8. I agree to be charged interest on any credit you extend to or maintain for me for purchasing, carrying or trading securities. The calculation methodology for the annual rate of interest I will be charged is described in the attached Disclosure of Credit Terms. Interest you pay on the margin debit balance in your account may be shared between your broker-dealer and NFS.
Interest on U.S. Dollar balances is calculated monthly according to my average debit balance for the month, and a base rate, set at the discretion of NFS with references to commercially recognizable interest rates, industry conditions regarding the extension of margin credit and general credit conditions. Interest rates will vary according to changes to my average debit balance and my base rate, and therefore may change without notice to me. If rates change during the month, separate charges will be shown for each interest period under the different rate. Interest on International balances is calculated daily according to actual daily debit balances during the month and the interest rate applicable to each currency in the account. Interest rates will vary according to actual daily debit balances and applicable international interest rates, and therefore may change without notice to me. Separate charges will be shown for each currency in the account at the end of the month. Calculated by computer, the interest on combined balances from all cash and margin accounts (except Type 3 Short and Type 9 Income accounts) is arrived at by multiplying the average debit balance for U.S. dollar balances by the effective rate of interest, dividing by 360, and multiplying by the number of days a daily debit balance was maintained during the interest period. Interest from International balances are calculated by multiplying the daily debit of International balances by the effective rate of interest, dividing by 360 and summing for each day a daily debit balance was maintained. You may request additional collateral in the form of marginable securities or cash whenever you deem it necessary or advisable in your sole discretion, or if there is a decline in the market value of securities in the margin account. All assets in any of my brokerage accounts, including, but not limited to, any funds held at any Bank pursuant to any FDIC-Insured Bank Deposit Sweep Program, as described in the Customer Brokerage Agreement, or any amendments thereto, are collateral for debit balances in this brokerage account, and a lien is created by these debits to

secure the amount owed you. This means assets in these brokerage accounts can be sold, withdrawn, transferred, or converted by you to redeem or liquidate any debit balances in this brokerage account. You reserve the right to increase maintenance requirements and to request additional collateral at any time at your discretion. The Federal Equal Credit Opportunity Act prohibits creditors from discriminating against credit applicants on the basis of race, color, religion, national origin, sex, marital status, age (provided the applicant has the capacity to enter into a binding contract); because all or part of the applicant's income derives from a public assistance program, or because the applicant has, in good faith, exercised any right under the Consumer Credit Protection Act. The Federal agency that administers compliance with this law concerning this creditor is: Securities and Exchange Commission, 100 F Street, NE, Washington, DC 20549.

9. I agree that, in giving orders to sell, all "short" sale orders will be designated as "short" and all "long" sale orders will be designated as "long" and that the designation of a sell order as "long" is a representation on my part that I own the security and that I have delivered or will deliver by settlement date such security to you.
10. Communications by mail, telegraph, messenger or otherwise sent to me at the address of record listed on the application or any other address I may give my Broker/Dealer in writing, are presumed to be delivered and received by me, whether actually received or not. A statement of all transactions will be mailed to the address of record, monthly or quarterly, depending on activity. I understand that I should promptly and carefully review the transaction confirmations and periodic brokerage account statements and notify my Broker/Dealer of any errors. Information contained on transaction confirmations and periodic brokerage account statements is conclusive unless I object in writing within five and ten days respectively, after transmitting to me.
11. I am liable for payment upon demand of any debit balance or other obligation owed in any of my accounts or any deficiencies following a whole or partial liquidation, and I agree to satisfy any such demand or obligation. Interest will accrue on any such deficiency at prevailing margin rates until paid. I agree to reimburse my Broker/Dealer and NFS for all reasonable costs and expenses incurred in the collection of any debit balance or unpaid deficiency in any of my brokerage accounts, including, but not limited to, attorneys' fees. By signing this Agreement, I hereby grant to NFS and its affiliates, to secure the payment and performance in full of all of the Obligations (as hereinafter defined), a security interest in and pledge and assign to NFS and its affiliates the following properties, assets and rights, whether now owned or hereafter acquired or arising, whether individually or jointly owned and/or held by me with others, and all proceeds and products thereof (all of the same being hereinafter called the "Property"): any and all securities, other investment properties (including investment company securities and securities accounts), monies, credit balances, assets or related contracts and deposit accounts, including, but not limited to, any funds held at any Bank pursuant to any FDIC-Insured Bank Deposit Sweep Program, as described in the Customer Brokerage Agreement, and any amendment thereto, to the extent any of the foregoing may now or hereafter be (i) held, carried and/or maintained by NFS and/or any of its affiliates, (ii) held, carried or maintained by NFS and/or any of its affiliates through any correspondent broker/dealer of NFS ("broker/dealer"), (iii) in the possession or control of NFS or any of its affiliates for any purpose, including for safekeeping, or (iv) held, carried or maintained or in the possession or control of the Fidelity Group of Funds Fidelity Service Company, Inc., as a transfer agent for the Fidelity Group of Funds or any sub transfer agent of the Fidelity Group of Funds. All terms defined in the Uniform Commercial Code of the Commonwealth of Massachusetts and used herein shall have the same definitions herein as specified therein; however, if a term is defined in Article 9 of the Uniform Commercial Code of the Commonwealth of Massachusetts differently than in another Article of the Uniform Commercial Code of the Commonwealth of Massachusetts, the term has the meaning specified in Article 9. For purposes hereof, the term "Obligations" shall mean any and all indebtedness, liabilities or other obligations (including unmatured and contingent obligations) now or hereafter owed by me to NFS, any of NFS's affiliates or any broker/dealer, including, but not limited to, any such indebtedness, liabilities or other obligations arising under this Agreement. If a default shall have occurred and be continuing, NFS and its affiliates, without any other notice to or demand upon me, shall have in any jurisdiction in

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which enforcement hereof is sought, in addition to all other rights and remedies, the rights and remedies of a secured party under Article 9 of the Uniform Commercial Code of the Commonwealth of Massachusetts and any additional rights and remedies as may be provided to a secured party in any jurisdiction in which Property is located, including, without limitation the right to take possession of the Property. Without limiting the foregoing, I understand that in the event any Obligation remains unpaid after payment is requested of me, NFS shall have the right to sell, liquidate, transfer, withdraw, convert, or assign such Property to satisfy any such Obligation whether or not NFS has made advances with respect to such Property. No further demand or notice shall be required prior to taking such an action. NFS shall have the discretion to determine which Property is to be sold, liquidated, transferred, withdrawn, converted, or assigned. Neither NFS nor any of its affiliates shall be required to marshal any present or future collateral security (including but not limited to the Property) for, or other assurances of payment of, the Obligations or any of them or resort to such collateral security or other assurances of payment in any particular order. I agree to cooperate with NFS and its affiliates and to execute such further instruments and documents as NFS or its affiliates shall reasonably request to carry out to their satisfaction the transactions contemplated by this Agreement.

12. My Broker/Dealer and NFS are not liable for any losses caused directly or indirectly by government restrictions, exchange or market rulings, suspension of trading, war, strikes or other conditions beyond their control, including, but not limited to, extreme market volatility or trading volumes.
13. No waiver of any provision of this Agreement shall be deemed a waiver of any other provision, nor a continuing waiver to the provision or provisions so waived.
14. No provision of this Agreement can be amended or waived except in writing signed by an officer of NFS. This Agreement will remain in effect until its termination by me is acknowledged in writing by an authorized representative of NFS; or until written notice of termination by you shall have been mailed to me at my address last given to you. I will remain responsible for all charges, debit items, or other transactions initiated or authorized by me, whether arising before or after termination.
15. **This Agreement and its enforcement shall be governed by the laws of the Commonwealth of Massachusetts; shall cover individually and collectively all brokerage accounts that I may maintain with NFS; shall inure to the benefit of my Broker/Dealer's or your successors and assigns whether by merger, consolidation or otherwise and my Broker/Dealer and you may transfer my account to my Broker/Dealer's or your successors and assigns; and shall be binding on my heirs, executors, administrators, successors, and assigns.**
16. If any provision of this Agreement is or at any time should become inconsistent with any present or future law, rule or regulation of any entity having regulatory jurisdiction over it, that provision will be superseded or amended to conform with such law, rule or regulation, but the remainder of this Agreement shall continue and remain in full force and effect notwithstanding any other provisions contained in this Agreement. No provision of this Agreement concerning liens or security interests shall apply to the extent the application would be in conflict with any provisions of ERISA or the Internal Revenue Code or any related rules, regulations, or guidance.
17. If the undersigned shall consist of more than one brokerage account holder, their obligations and liabilities under this Agreement shall be joint and several and may be enforced by my Broker/Dealer or NFS against any or all brokerage account holders.
18. I understand that you may deliver margin calls and other notices to my Broker/Dealer for the sole purpose of collection of my obligations under this Agreement. I agree to the foregoing and further understand that my Broker/Dealer may act on your behalf with respect to margin calls in your discretion.
19. I represent that I have read and understand the Disclosure of Credit Terms on Transactions. I further understand that they may be amended from time to time.

20. Pre-Dispute Arbitration Agreement

This agreement contains a pre-dispute arbitration clause. By signing an arbitration agreement, the parties agree as follows:

- (A) All parties to this agreement are giving up the right to sue each other in court, including the right to a trial by jury, except as provided by the rules of the arbitration forum in which a claim is filed.
- (B) Arbitration awards are generally final and binding; a party's ability to have a court reverse or modify an arbitration award is very limited.
- (C) The ability of the parties to obtain documents, witness statements and other discovery is generally more limited in arbitration than in court proceedings.
- (D) The arbitrators do not have to explain the reason(s) for their award unless, in an eligible case, a joint request for an explained decision has been submitted by all parties to the panel at least 20 days prior to the first scheduled hearing date.
- (E) The panel of arbitrators will typically include a minority of arbitrators who were or are affiliated with the securities industry.
- (F) The rules of some arbitration forums may impose time limits for bringing a claim in arbitration. In some cases, a claim that is ineligible for arbitration may be brought in court.
- (G) The rules of the arbitration forum in which the claim is filed, and any amendments thereto, shall be incorporated into this agreement.

All controversies that may arise between me, my Broker/Dealer and NFS concerning any subject matter, issue or circumstance whatsoever (including, but not limited to, controversies concerning any account, order or transaction, or the continuation, performance, interpretation or breach of this or any other agreement between me, my Broker/Dealer and NFS whether entered into or arising before, on or after the date this account is opened) shall be determined by arbitration in accordance with the rules then prevailing of the Financial Industry Regulatory Authority (FINRA) or any United States securities self-regulatory organization or United States securities exchange of which the person, entity or entities against whom the claim is made is a member, as I may designate. If I designate the rules of a United States self-regulatory organization or United States securities exchange and those rules fail to be applied for any reason, then I shall designate the prevailing rules of any other United States securities self-regulatory organization or United States securities exchange of which the person, entity or entities against whom the claim is made is a member. If I do not notify you and/or my Broker/Dealer in writing of my designation within five (5) days after such failure or after I receive from you a written demand for arbitration, then I authorize my Broker/Dealer and/or NFS to make such designation on my behalf. The designation of the rules of a United States self-regulatory organization or United States securities exchange is not integral to the underlying agreement to arbitrate. I understand that judgment upon any arbitration award may be entered in any court of competent jurisdiction.

No person shall bring a putative or certified class action to arbitration, nor seek to enforce any predispute arbitration agreement against any person who has initiated in court a putative class action; or who is a member of a putative class who has not opted out of the class with respect to any claims encompassed by the putative class action until: (i) the class certification is denied; or (ii) the class is decertified; or (iii) the customer is excluded from the class by the court. Such forbearance to enforce an agreement to arbitrate shall not constitute a waiver of any rights under this agreement except to the extent stated herein.

You are hereby authorized to lend, hypothecate or re-hypothecate separately or with the property of others, either to yourselves or to others, any property you may be carrying for me on margin. NFS may use certain securities in my account in connection with short sales and may receive compensation in connection therewith. This authorization shall apply to all my brokerage accounts you carry and shall remain in full force until you receive from my Broker/Dealer written notice of my revocation at your principal offices.