

ANNUAL MEETING OF SHAREHOLDERS OF

PERCEPTRON, INC.

November 17, 2009

NOTICE OF INTERNET AVAILABILITY OF PROXY MATERIAL:

The Notice of Meeting, Proxy Statement and 2009 Annual Report are available at http://www.amstock.com/ProxyServices/ViewMaterial.asp?CoNumber=05067

Please sign, date and mail your proxy card in the envelope provided as soon as possible.

Please detach along perforated line and mail in the envelope provided.

20830000000000000000 4

111709

PLEASE SIGN, DATE AND RETURN PROMPTLY IN THE ENCLOSED ENVELOPE. PLEASE MARK YOUR VOTE IN BLUE OR BLACK INK AS SHOWN HERE [X]

1. ELECTION OF DIRECTORS Directors recommend a vote for the following nominees to hold office until the Annual Meeting of Shareholders in 2010.

- FOR ALL NOMINEES
WITHHOLD AUTHORITY FOR ALL NOMINEES
FOR ALL EXCEPT (See instructions below)

- NOMINEES:
David J. Beattie
Kenneth R. Dabrowski
Philip J. DeCocco
W. Richard Marz
Robert S. Oswald
James A. Ratigan
Harry T. Rittenour
Terryll R. Smith

INSTRUCTIONS: To withhold authority to vote for any individual nominee(s), mark "FOR ALL EXCEPT" and fill in the circle next to each nominee you wish to withhold, as shown here: [dot]

2. RATIFY THE SELECTION OF GRANT THORNTON LLP AS INDEPENDENT AUDITORS Directors recommend the ratification of the selection of Grant Thornton LLP as the Company's independent auditors.

FOR AGAINST ABSTAIN [boxes]

Brokers executing proxies should indicate the number of shares with respect to which authority is conferred by this Proxy if less than all shares held as nominees are to be voted.

PLEASE EXECUTE AND RETURN THIS PROXY IN THE ENCLOSED ENVELOPE PROMPTLY.

If no choice is specified, this proxy will be voted for the election of the Company's nominees as Directors (including the election of any person for the Board of Directors where a nominee named in the Proxy Statement is unable or, for good cause, will not serve) and for the ratification of the selection of Grant Thornton as the Company's independent auditors.

Discretionary authority is hereby conferred as to any other matters as may properly come before the Annual Meeting. The undersigned acknowledges receipt of the 2009 Annual Report, and the Proxy Statement and Notice of said meeting both dated October 2, 2009.

TO INCLUDE ANY COMMENTS, USE THE COMMENTS BOX ON THE REVERSE SIDE OF THIS CARD.

To change the address on your account, please check the box at right and indicate your new address in the address space above. Please note that changes to the registered name(s) on the account may not be submitted via this method. [box]

Signature of Shareholder [line] Date: [line] Signature of Shareholder [line] Date: [line]

Note: Please sign exactly as your name or names appear on this Proxy. When shares are held jointly, each holder should sign. When signing as executor, administrator, attorney, trustee or guardian, please give full title as such. If the signer is a corporation, please sign full corporate name by duly authorized officer, giving full title as such. If signer is a partnership, please sign in partnership name by authorized person.

PERCEPTRON, INC.**THIS PROXY IS SOLICITED BY THE BOARD OF DIRECTORS OF PERCEPTRON, INC.**

The undersigned shareholder hereby appoints HARRY T. RITTENOUR, JOHN H. LOWRY, III and DAVID W. GEISS, or any one of them, the attorney and proxies of the undersigned, with power of substitution, to vote all shares of common stock of Perceptron, Inc. standing in the name of the undersigned at the close of business on September 25, 2009 at the Annual Meeting of Shareholders of Perceptron, Inc. to be held on Tuesday, November 17, 2009 at 9:00 a.m., local time, and at any and all adjournments thereof, with all the powers the undersigned would possess if then and there present.

The shareholder instructs the proxies to vote as specified on this proxy on the matters described in the Proxy Statement dated October 2, 2009. Proxies will be voted as instructed.

ELECTRONIC ACCESS TO FUTURE DOCUMENTS

If you would like to receive future shareholder communications over the Internet exclusively, and no longer receive any material by mail please visit <http://www.amstock.com>. Click on Shareholder Account Access to enroll. Please enter your account number and tax identification number to log in, then select **Receive Company Mailings via E-Mail** and provide your e-mail address.

(Continued and to be signed on the reverse side)

SEE REVERSE
SIDE

COMMENTS: