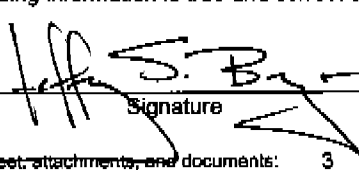


Form PTO-1595 (Rev. 03/01) OMB No. 0651-0027 (exp. 5/31/2002)		<b>RECORDATION FORM COVER SHEET</b> <b>PATENTS ONLY</b>		U.S. DEPARTMENT OF COMMERCE U.S. Patent and Trademark Office	
To the Honorable Commissioner of Patents and Trademarks: Please record the attached original documents or copy thereof					
1. Name of conveying party(ies): <b>Amardeep Singh</b>  Additional name(s) of conveying party(ies) attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			2. Name and address of receiving party(ies) Name: <u>Smith International, Inc.</u> Internal Address: _____ Street Address: _____  16740 Hardy Street  City: <u>Houston</u> State: <u>Texas</u> Zip: <u>77032</u> Additional name(s) & address(es) attached: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
3. Nature of Conveyance: <input checked="" type="checkbox"/> Assignment <input type="checkbox"/> Merger <input type="checkbox"/> Security Agreement <input type="checkbox"/> Change of Name <input type="checkbox"/> Other _____ Execution Date: <u>August 25, 2005</u>			4. Application number(s) or patent number(s):  If this document is being filed together with a new application, the execution date of the new application is: _____ A. Patent Application No.(s): <u>11/184,719</u> B. Patent No.(s): _____  Additional numbers attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
5. Name and address of party to whom correspondence concerning document should be mailed: Name: <u>Jeffrey S. Bergman</u> <u>OSHA - LIANG LLP</u> Internal Address: <u>Atty. Dkt.: 05516/239001</u> Street Address: _____ <u>1221 McKinney St., Suite 2800</u>  City: <u>Houston</u> State: <u>TX</u> Zip: <u>77010</u>			6. Total number of applications and patents involved: <u>1</u>  7. Total fee (37 CFR 3.41) \$ <u>40.00</u> <input type="checkbox"/> Enclosed <input type="checkbox"/> Authorized to be charged to deposit account <input checked="" type="checkbox"/> Authorized to be charged to credit card (Form 2038 enclosed)		
8. Deposit account number: <u>50-0591</u> (Attach duplicate copy of this page if paying by deposit account)			DO NOT USE THIS SPACE		
9. Statement and signature. <i>To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.</i>  <div style="display: flex; justify-content: space-between; align-items: flex-end;"> <div style="text-align: center;"> <u>JEFFREY S. BERGMAN</u>              Name of Person Signing           </div> <div style="text-align: center;">               Signature           </div> <div style="text-align: center;"> <u>October 7, 2005</u>              Date           </div> </div> <div style="text-align: center; margin-top: 10px;">             Total number of pages including cover sheet, attachments, and documents: <u>3</u> </div>					

I hereby certify that this correspondence is being facsimile transmitted to the Patent and Trademark Office, facsimile no. (571) 273-0140, on the date shown below.

Dated: October 7, 2005

Signature:

Ava R. Brown (Ava R. Brown)

## ASSIGNMENT – WORLDWIDE

For good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the undersigned individual(s) (referred to herein as the "INVENTOR(S)") hereby assign, transfer, and set over to:

**Smith International, Inc.**

having the following address:

**16740 Hardy Street, Houston, Texas 77032**

(referred to herein as "COMPANY"), its successors, and assigns, the entire right, title, and interest, worldwide, in and to the invention known by the following title:

for which the undersigned has/have executed an application for patent in the United States of America on or about this same day, together with said patent application, all divisions, continuations, continuations-in-part, reissues, and extensions thereof, and all Letters Patent (domestic and foreign) that may be granted therefor. Such interest represents the entire ownership of said applications and Letters Patent when granted and is to be owned by COMPANY, its successors, and assigns, or their legal representatives, for the full and entire term for which such Letters Patent may be granted or extended, as fully and entirely as the same would have been enjoyed by the INVENTOR(S) if this assignment had not been made.

In addition, the undersigned INVENTOR(S) each hereby agrees:

1. To sign and execute any further documents that may be necessary or desirable, lawful, and proper in connection with the prosecution of all applications for patent(s) on the INVENTION in the United States, including without limitation said application and all divisions, continuations, continuations-in-part, amendments thereof, and all interference proceedings associated therewith, or otherwise necessary or desirable to secure the title thereto to COMPANY;
2. To execute all papers and documents and to perform all lawful acts that may be necessary in connection with claims to priority or otherwise under the International Convention for the Protection of Industrial Property or similar treaties or agreements;
3. To perform all lawful affirmative acts that may be necessary to obtain the grant of valid and enforceable patents to COMPANY.

The undersigned INVENTOR(S) each hereby authorizes and requests the Commissioner of Patents and Trademarks in the United States to issue any and all Letters Patent resulting from said application, including without limitation any division, continuation, continuation-in-part, or reissue thereof to COMPANY.

The undersigned INVENTOR(S) each hereby grants to the firm of OSHA • LIANG LLP the power to insert on this Assignment any further identification that may be necessary or desirable in order to comply with the rules of the United States Patent and Trademark Office for the recordation of this document.

---

**OSHA • LIANG LLP**

**PATENT**  
**REEL: 016859 FRAME: 0182**

IN WITNESS WHEREOF, this Assignment has been executed by each of the undersigned individuals on the date appearing by such individual's signature:

<u>8/25/05</u> Date	1 <sup>st</sup> Inventor Signature: <u>Amardeep Singh</u> Print or Type Name: <u>Amardeep Singh</u>
_____ Date	2 <sup>nd</sup> Inventor Signature: _____ Print or Type Name: _____
_____ Date	3 <sup>rd</sup> Inventor Signature: _____ Print or Type Name: _____
_____ Date	4 <sup>th</sup> Inventor Signature: _____ Print or Type Name: _____

This Assignment may be signed before either:

(a) a Notary Public for one of the States of the United States, or (b) two witnesses who sign below:

NOTARY PUBLIC

State of Texas  
County of Harris

Before me personally appeared:

Amardeep Singh

1<sup>st</sup> Inventor

2<sup>nd</sup> Inventor

3<sup>rd</sup> Inventor

4<sup>th</sup> Inventor

each of whom acknowledged the foregoing instrument to be a free act and deed and also represented that he/she is authorized to execute this Assignment.

Dated: 8/25/05



INEZ G. CAMERON  
MY COMMISSION EXPIRES  
June 8, 2008

Notary Public

My commission expires: 6-8-08

WITNESSES

Signature of Witness: \_\_\_\_\_

Date

Print or Type Name: \_\_\_\_\_

Signature of Witness: \_\_\_\_\_

Date

Print or Type Name: \_\_\_\_\_

113821\_1

When this Assignment is not filed concurrently with the patent application,  
the following identifying information may be added after execution:

U.S. Application Serial No.: 11/184,719

Filing Date: July 19, 2005

ASSIGNMENT - WORLDWIDE

Page 2

OSHA • LIANG LLP

PATENT

RECORDED: 10/07/2005

REEL: 016859 FRAME: 0183